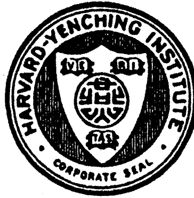
HARVARD-YENCHING INSTITUTE STUDIES
XVII

THE PADĀRTHATATTVANIRŪPAṆAM OF RAGHUNĀTHA ŚIROMAṆI

(A Demonstration of the True Nature of the Things to Which Words Refer)

BY

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CONTENTS

ACKNOWLEDGMENTS

The body of the present volume consists of the text and an English translation of Raghunātha's work together with a running commentary thereon designed to aid the reader in understanding the force of the arguments. In the Introduction I have attempted to explain briefly the historical background of Navya-nyāya, the nature of the Vaiśesika metaphysical categories, and the aims of the Navya-nyāya logicians, matters acquaintance with which seems to me necessary in order to understand and assess the value of Raghunātha's contribution.

In preparing the translation and commentary I owe my greatest debt to the late Professor Saileswar Sen, Professor of Philosophy at Andhra University throughout much of his life and at the time of my visit to India. Without Professor Sen's generosity with his time and his thorough understanding of the Nyāya-Vaiśeṣika system of philosophy, the present work would have been quite impossible.

The inspiration for the present study came from my teacher, Daniel H. H. Ingalls, Associate Professor of Sanskrit and Indian Studies, Harvard University. It was he who first introduced me to Indian philosophy in the Sanskrit texts, who helped me to discover an abiding interest in the Nyāya-Vaiśeṣika system, and who has been unstinting in his time and energy in helping me prepare the present form of the translation and commentary. No student has ever had more inspiring and scholarly guidance than I have had from Professor Ingalls.

I also wish to thank the United States Educational Foundation in India, headed at that time by Dr. Olive I. Reddick, which so gracefully helped me through the little difficulties attendant on my visit to India under auspices of a Fulbright award in 1952-53.

This work is in the main a portion of a dissertation submitted in partial satisfaction of the requirements for the Ph.D. in Philosophy at Harvard University. Among the faculty there I wish to thank in particular Professors Donald Williams and Willard Van Orman Quine for their criticisms of early drafts of the thesis.

Carleton College, 1956 Karl H. Potter

INTRODUCTION

"Nyāya" is a word used often in Indian philosophy; like many another Sanskrit philosophical term, it has several meanings. Its earliest meaning appears to have been "rule," "model" or "plan," the original type into which everything fits. When inference came to be recognized as a more or less orderly process it was called "nyāya," and there came to be argument about how many "members of the syllogism" were involved and what their nature was. The Nyāya system of philosophy was so named, evidently, because it devoted more attention to the inferential process than the other orthodox schools of Indian philosophy. It is reputed to have been founded by one Gautama, to whom the *Nyāyasūtras*, the earliest compilation of doctrine of the school, is attributed. Our knowledge of the date of the founding of the school is hazy, as presumably the doctrine as we get it in the sutras had developed over some years preceding its being written down. The sutras themselves appear not to have been cast into the form in which we now have them until about A.D. 200.[1]

At somewhere near the same time, another school of Indian philosophy called the "Vaiśeṣika" school came into existence. Evidently the school received this name because among the types of things it admitted in its metaphysical scheme there was an entity called a "viśeṣa," literally a "particularizing" or "individualizing" thing. This sort of entity was only admitted by this particular school, and hence the school's name. The *Vaiśesikasūtras*, which are said to have been written by Kaṇāda, like Gautama very probably a mythical personage, may have been cast into their present form a century or so before the present edition of the *Nyāyasūtras*.

The general aim of all systems of Indian philosophy is to help one achieve liberation from the bondage of life as we know it here on earth, and from the future returnings to this life which the Indian tradition accepted in its doctrine of transmigration. The various systems differ among themselves over what kind of help they can offer, and differing methods for achieving release are advocated. This leads to differing emphases among the schools,

[1]Cf. H. Jacobi, "Dates of the Philosophical Sutras," *Journal of the American Oriental Society* 31 (1911), 1-29.

so that the school known as Yoga emphasizes constructive action of certain kinds, Pūrvamīmāmsā emphasizes traditional ritual observances, and some forms of Vedānta apparently emphasize a rather mystical sort of illumination. Nyāya and Vaiśeṣika, from the first, emphasized in their turn the necessity of discovering the nature of the empirical world around us before we can know how to escape it.

The difference between the two sets of sutras is in the means of approach to this common business of discovering the nature of the empirical world. The *Nyāyasūtras* set out to show how to discover what the facts are by showing first how to tell a valid argument from an invalid one. Their orientation is epistemological and logical. A great deal of the work is taken up with explaining how one can successfully carry on a philosophical debate, and the text provides incidentally some interesting suggestions about the intellectual temper of the times. Some sixteen "categories" are distinguished, but there is little or no apparent principle guiding their selection - they are neither categories of things nor of statements. The first of these categories, the correct means of knowledge *(pramāṇa)*, is however of supreme importance, and the commentators in the Nyāya tradition base their studies mainly on the four subdivisions of this first category. The four valid ways of knowing according to the Naiyāyika are (1) by sense-perception, (2) by inference, (3) by comparison, and (4) by verbal testimony. In defending their views about these four epistemological categories the commentators on the *Nyāyasūtras* - men such as Vātsyāyana (4th century A.D.?), Uddyotakara (7th century A.D.) and others - fell into violent controversies with scholars of the other contemporary schools, most notably with the Buddhist "logicians" belonging to the school of thought founded by Dignāga. In this stimulating period of philosophical give-and-take, several of the most basic and characteristic of the Nyāya doctrines had their origin.

The *Vaiśeṣikasūtras,* on the other hand, might be said to approach the problem of discovering the nature of the world through a metaphysical rather than epistemological orientation. The system with which we are presented in this work bases itself on the division of the kinds of atomic things in the world into six categories. The author of the sutras took as his business the sorting out of everything experienced into a combination of one or another of these six basic kinds of things. His commentator, Praśastapāda (c. A.D. 400), evidently benefiting also from the argumentative temper of the times, carried on the business in a remarkably thorough fashion.

From the first, it is interesting to note, each of the two schools had a place for the topics discussed by the other. The

Nyāya category of *prameya,* the things to be known, covers the things categorized by the Vaiśesika, and the Vaiśesika discusses perception, inference and verbal testimony at the appropriate places in its program. It is not surprising, then, to find the two schools becoming to all intents and purposes one around the eleventh century A.D.

The most highly developed work of the syncretic school was produced in North India between the thirteenth and seventeenth centuries by a group of philosophers whose greatest exponent was a philosopher named Gaṅgeśa and who are often called Navya-naiyāyikas.[2] These are the "new" Naiyāyikas; as Ingalls points out, the newness of this school lay in its emphasis on greater precision than before and the introduction of a large number of fresh technical terms.[3] Ingalls has demonstrated how many of these technical terms function; in what follows I shall have some occasion to explain a few others.

Throughout the development of these two systems and their eventual closing together into one, the changes in basic structure were negligible, and after the initial stages there appears to have been no one philosopher who introduced any more than one or two radical changes within either system with the exception of the new Naiyāyika Raghunātha Śiromaṇi, who lived from about 1475 to 1550 A.D.[4]

Raghunātha is perhaps best known to students of the Navya-nyāya system as the founder of the Navadvīpa school and as the author of the most important commentary on Gaṅgeśa's *Tattvacintāmani,* the work upon which his reputation as an eminent logician largely rests. That Raghunātha was more than strictly a logician, however, that he was interested in more than theory of inference and the definition of *vyāpti,* is attested to by his authorship of the *Padārthatattvanirūpana (PTN).* In the *PTN* Raghunātha strikes devastating blows at the whole categorial framework of the old Vaiśeṣika system, eliminating several categories and sub-categories and suggesting new ones.

[2]"Naiyāyika" is generally employed to refer to a proponent of the Nyāya system; "Vaiśeṣika" refers to a follower of the Vaiśeṣika system. But the former term may also be used, when no ambiguity results, to characterize a follower of the syncretic school, a practice I shall follow in this study.

[3]*Materials for the Study of Navya-nyāya Logic* (hereafter referred to as *Materials),* Harvard Oriental Series 40 (1951), p. 6.

[4]Full details on Raghunātha's life and a list of his writings are provided in *Materials,* pp. 9-20.

"Category" is the usual translation of Sanskrit "padārtha." Literally, "padārtha" means "the thing of a word" or "that to which a word refers," and the title of Raghunātha's work may be rendered as "A Demonstration of the True Nature of the Things to Which Words Refer."

It is important, however, to be entirely clear as to what sort of "things" and what kind of "reference" is meant. There is a connotation to the English word "thing" which makes it advisable to adopt a more specific word to talk about the entities which belong to the categories. A "thing" to us is primarily a concrete physical object such as a book or a chair. We would not normally speak of a color as a "thing," and almost certainly we should not speak of a universal property as a "thing," even if we should grant it existence or subsistence. And even more surely we should not say that the absence or non-existence of a pink elephant on my doorstep is a "thing." And yet the Naiyāyika wants to say that all these abstract entities belong among one or another of the categories, i.e., are things words refer to.

One might therefore presume that "entity" would serve as a translation of "artha," covering both concrete and abstract items. A further peculiarity in the Nyāya point of view suggests that we can do better than this, however. For actually, with the possible exception of those entities belonging to the first category, whose exact nature presents a knotty problem indeed, the elements of the Naiyāyika's world are all abstracta, and concrete objects are built up from, or analyzed down into, these atomic or elementary entities. The middle-sized objects of our everyday world are concreta, and as such belong to no category at all. They are not, as we shall come to realize, among the "things referred to by words" whose true nature Raghunātha proposes to explain. It seems then that we who are trying to understand Raghunātha shall need two words, one to speak of the abstract elements and another to speak of those concrete portions of experience which are built up out of the abstract elements.

The obvious suggestion, then, will be that we keep the words "abstracta" and "concreta" for these functions. Here, however, still another peculiarity of the Nyāya view presents itself. For the basic elements of the universe, which are indeed abstract, combine not only to form concreta but also to form other groups which might be considered to come to something like our "facts." To the Naiyāyika, my typewriter and my typing on my typewriter present no different kind of problem for analysis – they are both complexes of abstracta. But facts are not concreta, and it is dubious whether they may be called abstracta. We need first a term to cover just those entities comprising the categories, and then

a distinct term characterizing all those entities composed of the first sort.

For the purpose of making this distinction I have adopted the words "individual" and "object." Individuals are abstract, although some are particular and others universal. Some objects are concrete, others not. It will be shown subsequently that the Navya-naiyāyika attempts to set forth the rules limiting the kinds of combinations into which individuals enter to form objects, to set forth these rules in a system in which each and every term refers to individuals. It should be noted that the distinction between objects and individuals is not made, as far as I know, in any Nyāya text, but its usefulness in giving an understandable account of the system will, it is hoped, become evident to the reader.

The word "refers" is used in the title in what must now be recognized to be a technical sense. In the present study, the word "refers" will be used only to indicate the relationship between words and individuals. The relationship between words and objects, on the other hand, will be indicated by the word "describes." An ordinary Sanskrit word, following this convention, at the same time describes an object and refers to a number of individuals. Most technical Nyāya terms, on the other hand, refer to only one individual and describe no objects at all.

Words, then, refer to individuals on the Navya-nyāya view. Individuals combine in certain prescribed ways to form objects. Raghunātha's task is to identify just those individuals which make up the objects of the universe of experience, to show that just so many categories of individuals are needed and no more. That this is how he conceives his task will become evident as we read along in the work and come to notice the repeated use of certain forms of argument, the appeal to certain criteria by which Raghunātha measures the success or failure of his or an opponent's theories. So that the reader may recognize these criteria as they appear, I shall briefly describe them here.

1) The Criterion of Ordinary Experience. This criterion assures the system of a basis in experience, and in experience of what the Indian considers to be the most common, unextraordinary sort. For Raghunātha, the experience of the yogi or saint is not relevant to the task; the choice of categories of individuals and the choice of rules connecting them so as to form objects must not run counter to common-sense experience of ordinary people *(sārvalaukikapratyaya)*. One must certainly not assume, however, that the Indian's ordinary experiences are like ours, and we shall find Raghunātha claiming the sanction of experience for several things which may seem alien to our common sense.

2) The Criterion of Simplicity. A criterion which grows in importance during the history of the Nyāya-Vaiśesika system is that of "lightness" (*lāghava*) or simplicity. A theory has "heaviness" (*gaurava*) if it commits us to a more complicated basis for our system than is necessary. It is not entirely clear, however, what this criterion calls for. Whereas we should expect the goal to be the smallest number of kinds of individuals, Raghunātha is aiming, apparently, for the smallest number of individuals regardless of kinds. The evidence for this statement is as follows. In the *PTN* Raghunātha explicitly uses the words "gaurava" and "lāghava" in five places: 25.1-3, 42.3-43.1, 58.1-3, 65.1-66.1, and 66.2-6. If the reader will examine these passages, he will discover that in two cases, 42.3-43.1 and 65.1-66.1, the simplicity called for might be either paucity of individuals or paucity of kinds of individuals, while in 58.1-3 neither reduction of kinds nor of individuals is involved, but rather ease of arrangement. In 25.1-3 and 66.2-6, however, it is quite clear that Raghunātha is claiming that there are less individuals involved in his theory than in the opponent's. Indeed, in 66.2-6 Raghunātha's view actually *adds* a kind of individual in order to gain simplicity.

These two criteria represent the general arguments which Raghunātha uses to justify a theory. There are also more specific fallacies which Raghunātha explicitly tries to avoid. Important among them is (3) the fallacy of overextended definition (*ativyāpti*), where a proposed definiens applies to something not part of the definiendum (e.g., "a cow is a horned animal" is a poor definition, since buffaloes also have horns).[5] Three other difficulties which Raghunātha wishes to avoid are (4) the fault of engendering an infinite regress (*anavasthā*), (5) the fault of cross-connection of universals (*jātisaṅkara*), and (6) the fault of an individual's being its own residence (*ātmāśraya*). This latter fault is more or less like the fallacy of circular definition.

What Raghunātha claims to be able to give us, then, is a system of individuals which provides an analysis for every object we are aware of, which agrees with ordinary experience, and which commits us to as few individuals as possible, besides avoiding certain other faults. That is what he means by the demonstration of the true nature of the things words refer to.

Although, as I have mentioned, no metaphysical distinction is actually drawn in the Vaiśesika system between individuals and objects, there is an epistemological distinction in classical Nyāya theory which approximates it. That is the distinction between the

[5] Cf. *Materials*, p. 81.

things known by indeterminate *(nirvikalpaka)* and by determinate *(savikalpaka)* knowledges. In the content of a determinate knowledge there must be, according to the Nyāya system, at least three entities – a qualificand *(viśeṣya)*, a qualifier *(viśeṣaṇa)*, and a connector *(sambandha)*.[6] For instance, the determinate knowledge of a pot is a knowledge of three entities – a substance, a universal and a connector between them. This group of three entities we may, in accordance with the foregoing paragraphs, call a "minimal object," since it is an object with the least possible number of constituents, three. The constituents themselves – the substance, the universal, and the connector – which can only be known by indeterminate knowledges, are individuals, and it is these constituents which are the things to which words refer and which are classified into categories.

Another set of terms used to describe the functioning of individuals as constituents of objects is the following. As we have seen, the minimal object consists of three individuals, one of which is called the connector. The connector always points from one relatum to the other: we may call the individual from which the connector points the subjunct *(anuyogin)* and that to which it points the adjunct *(pratiyogin)*.[7] More complicated objects are formed by further three-fold connections, so that the subjunct in a minimal object A may be the adjunct in a minimal object B and the connector in a minimal object C, where A, B and C together constitute a complex object. In such a case, indirect relationships come into being, certain individuals mediating between others as links in the chain of minimal objects.

This pattern will seem peculiar at first to the Western reader, I suspect, principally because of the appearance of the notion that the relation between two individuals is a third individual itself. I think this is because we naturally think according to a different model, one couched in terms of concrete objects. The spatial relation between two books on a shelf might be called "being-next-to"; the books are concrete entities, but the relation is, if an entity at all, an abstract one. We find it natural to think of relations as entirely different in nature from the things they relate. The Naiyāyika's relations obtain not between concrete entities, however, but between abstract ones – individuals – and thus our distinction does not apply. In order to keep this difference always in the front of the reader's mind as he works through the translation which follows, I have chosen to speak of Nyāya relations

[6]Cf. *Materials*, pp. 39-40.

[7]*Materials*, p. 44.

as "connectors" rather than relations, to suggest that they are as much things words refer to as any other individuals.

Having explained how connectors function – they are individuals which point from one individual to another – we may next ask what sorts of connectors there are. There are three kinds of connectors according to the system. The first of these is the connector called, for want of a better translation, "inherence" *(samavāya)*. It forms a separate category of individuals, and on the old theory there was only one inherence, one individual which was limited by the individuals with which it came into connection. This connector connects individuals in a way parallel to the way we might think of the inherence relation connecting concrete entities with their properties. Thus in the Nyāya-Vaiśesika system colors, motions and universals inhere in substances, and while as we shall see these individuals are not conceived precisely as Westerners might think, still the parallel is close enough to make the word meaningful without being too misleading. The inherence connector also functions in other ways quite foreign to us; we shall notice these peculiarities in due time.

The second kind of connector has two varieties: contact *(saṃyoga)* and disjunction *(vibhāga)*. These two kinds of connectors form two of the twenty-four kinds of "tropes," a category-name which I shall explain in a moment. These connectors connect substances, contact a pair of substances which are conjoined, disjunction a pair of substances which have been disjoined. They are themselves connected by the inherence connector to the pairs of substances they connect. Note especially that, despite the name "disjunction," which suggests that the entity is a universal, these are not universals but abstract particulars; there is one contact for each conjoined pair and a different contact for the next.

The third kind of connector is most peculiar. It may be called the "self-linking connector" *(svarūpasambandha)*.[8] A self-linking connector is an individual functioning as its own connector. There are two sorts of self-linking connectors, direct and indirect. An indirect self-linking connector connects two individuals by way of the mediation of one or more other individuals. A direct self-linking connector connects two individuals without any mediating link. Ingalls calls this kind of connector "peculiar relation," because it is "a relation peculiar to the pair it connects."[9]

The importance of self-linking connectors in the system may be appreciated by considering the relationship between the three

[8]This translation follows S. Kuppuswami Sastri, *A Primer of Indian Logic* (Madras, 1932).

[9]*Materials*, p. 41.

kinds of connectors. Each contact and each disjunction must be connected to the pair of substances which are conjoined or disjoined, and the connector which does the job is the inherence connector. But there must be, in addition, one connector to connect the inherence to the pair of substances and another connector to connect the inherence to the contact. Both these connectors are held by the Naiyāyikas to be self-linking ones.

The notion of an individual linking itself is a particularly difficult one to understand. Indeed, the word "svarūpa" - literally "having its own form" - creates major difficulties for the Naiyāyika no less than for his critics.[10] It is not clear what is involved in the notion that an individual can be its own connector. Construed quite literally, it seems as though such an individual would be both a connector and not a connector at the same time with respect to the same (other) individuals, and this appears to violate the law of non-contradiction. But this may not be what the Naiyāyika means at all; the matter needs further investigation.

We are now just about ready to turn to the categories themselves and to Raghunātha's treatment of them. Before doing so, however, it will be well to discuss two terms used in the *PTN* which belong to the peculiar machinery developed by Gaṅgeśa and his followers of the new school, including Raghunātha. These terms are "imposed property" *(upādhi)* and "limitor" *(avacchedaka)*.

Broadly speaking, an *upādhi* is a condition on anything, an individual which qualifies or limits the scope of another individual. It is in this broad sense, for example, that the contact between the sun's rays and a certain mountain is said to qualify or limit the individual which the old school called "big-time" *(mahākāla)*, the resulting, qualified, individual being called "little-time" *(khaṇḍakāla)*. Here the contact is an *upādhi* or "limiting condition."

There is also a technical Navya-nyāya use of the word "upādhi" which, following Ingalls, is translated here as "imposed property." The names of imposed properties are formed, as those of universals are, by adding "-tā" or "-tva" to a noun or adjective stem. They differ from universals in that they are said to be connected to their loci by self-linking connectors, whereas universals are connected to their loci by inherence. Imposed properties may be thought of as candidates for universalhood which fail to pass one or more tests among the six well-known impediments of Udayana.[11]

Imposed properties are of two sorts - indivisible *(akhaṇḍa)*

[10]*Materials*, pp. 67-71.

[11]*Materials*, p. 42, note 49.

and divisible (compound or complex) (*sakhanda*). Among the indivisible imposed properties may be counted the characters of unit classes [e.g., Devadatta being the name of a particular person, Devadattaness (*Devadattatva*) is an imposed property], and second-order properties [e.g., the universal potness (*ghaṭatva*) is a first-order property and potnessness (*ghaṭatvatva*), being a second-order property, is an imposed property]. An example of a divisible imposed property is deathness (*maranatva*), which is divisible since it is defined as "the cessation of inhalation and exhalation."[12]

Imposed properties are individuals and therefore must belong to one or another of the categories. The usual rule is that imposed properties belong to the same category as their loci; thus, Devadatta belonging to the first category (as we shall see), Devadattaness, while a distinct individual from Devadatta, also belongs to the first category.[13] This creates difficulties in the case of such a supercategorial imposed property as *bhāvatva*, whose loci consist of all the individuals belonging to the first six categories.

I have used "limiting condition" and "limits" loosely to describe the function of an *upādhi*. In a more technical sense, however, a limitor (*avacchedaka*) is any qualifier which qualifies a relational abstract. Relational abstracts are such imposed properties as, e.g., locusness (*adhikāraṇatā*), which is the individual which becomes connected to a second individual through that second individual's functioning as its locus. In such an expression as "locusness limited by fireness," fireness is the limitor of locusness. Through such expressions the Navya-naiyāyika manages to identify a class without listing all its members. He comes to use such expressions because of the absence in his language of any way (such as the use of articles) of distinguishing general from singular terms, and the absence of any clear idea of quantification.[14] Here, where we may say "the loci of fire," the Navya-naiyāyika accomplishes the same thing by speaking of "loci whose locusness is limited by fireness." But an explanation of the genesis of this way of speaking should not be allowed to obscure the fact that to the Naiyāyika fireness is the characteristic property which is responsible for a group of individuals connected with this property being called "fires," and is itself a distinct individual.

It will be well now to get a bird's-eye view of the Old Vaiśeṣika classification of individuals and of Raghunātha's revision of this

[12] *Materials*, pp. 40-42.

[13] *Materials*, p. 47.

[14] *Materials*, pp. 44-50.

classification, so that the reader may understand more clearly the force of the arguments in the *PTN*. Kaṇāda's original categorial scheme appears to have divided the universe of individuals into six categories, which we may translate respectively as (1) substances, (2) tropes, (3) motions, (4) universals, (5) inherence, and (6) individuators. (An explanation of these translations follows.) Some time after Praśastapāda wrote his *Padārthadharmasaṃgraha,* a seventh category, that of absences, was added, and it is these seven categories which students know as characteristic of the old Vaiśeṣika system. This classical arrangement was evidently accepted without question by most members of the school until the time of Raghunātha. While by no means all of Raghunātha's revisions were accepted even by members of his own Navadvīpa school, he is to be admired for his courage in breaking away sharply from a tradition extending back without essential change for almost a thousand years.

The first category *(dravya)* is perhaps the hardest to characterize by any English word - the usual choice has been "substance." If we use this word we must be aware of certain basic differences between the way the word is used in European philosophy and the way it must be used here. In the first place, the list of *dravya*'s includes not only material things but also a spiritual one, soul, and a psychological one, the internal organ. Thus the translation "substance" should not be allowed to suggest "matter." In the second place, the Naiyāyika's *dravya*'s are not concrete, whereas our substances, such as chairs, are concrete entities. Thirdly, there is no particular affinity between *dravya*'s and the subjects of sentences, as there appears to have been in traditional European metaphysics, particularly in Aristotle, between substances and subjects of sentences. Fourthly, many *dravya*'s are no more enduring than other individuals; members of the other categories go into and out of connection with time as often or less often than *dravya*'s. The reader must satisfy himself as to whether, in the light of these differences, it is more misleading than helpful to translate *dravya* as "substance." Acting on the principle that some translation is preferable to none at all, I shall adopt the word in this essay, but with great trepidation.

Substances are "bare particulars," to use a phrase from Western philosophy. They have no parts; indeed, no individuals have parts, except, perhaps, the compound imposed properties mentioned earlier. It is important to keep this in mind when reading portions of the *PTN* which deal with the problem of concretion. The things we English-speaking people call "substances" the Navya-naiyāyika would call objects. When the Naiyāyika talks within his system of a pot (a favorite example), he is not speaking of an entity

which is round and colored and has a bottom and an inside. He is speaking of a something which may be the substratum of all these characters, but is distinct from their sum. His substance which he calls a "pot" may be connected to roundness, may be connected to a color and to coloredness in general, and may be connected to its bottom and the imposed property "having-an-insideness," but it is quite other than any of these individuals or the totality of all of them. It is not identical with the sum of its parts; it has no parts, in the sense of "part" to which we are most accustomed.

This basic feature of the system may perhaps best be appreciated by considering how a pot (the individual) is produced. Pots were evidently made, in the days when the theory was being developed, by first making two halves and then putting the halves together. Now we would find it perfectly correct to say that a whole pot is the sum of the two pot-halves. But the Naiyāyika does not say this. For him, the whole pot is a distinct individual and not the sum of anything. The pot-halves are the inherence cause of the pot; in order to produce a pot, there must be antecedent contact between pot-halves. But the contact is a third individual besides the pot-halves, and the pot is a fourth individual over and beyond the other three.

Traditionally, there are nine sorts of substances: (1) earth *(pṛthivī)*, (2) water *(ap)*, (3) fire or light *(tejas)*, (4) wind or air *(vāyu)*, (5) ether *(ākāśa)*, (6) time *(kāla)*, (7) space *(dik)*, (8) the internal organ *(manas)*, and (9) the soul *(ātman)*. The first five in this list are often called elemental *(bhautika)*, while the first four together with the internal organ are said to be material *(mūrta)*. Ether, time, space and the souls are supposed to be all-pervasive *(vibhu)*, unlike the others, which possess finite dimension. Individuals belonging to one of the first four categories are either themselves atoms or are created from atoms of that category according to a peculiar scheme which requires that there be two sorts of subperceptible individuals – atoms *(paramāṇu)* and double-atoms *(dvyaṇuka)*. The minimal perceptibilium or element *(truṭi)* is created from the contact of three double-atoms.

Raghunātha revises this category drastically. Time, space and ether are shown to be the same individual as the supreme soul or god *(īśvara)*. The internal organ is all but eliminated, being kept, apparently, only as an odd sort of material element. As a result of these changes, the distinction between elementality and materiality disappears, and there are left only six kinds of substances. Raghunātha then goes on to deny the existence of atoms and double-atoms, arguing that elements are the irreducible substances.

The translation of the name of the second category, *guṇa*, presents equally grave problems. The usual practice has been to translate this word as "quality." This practice is very misleading, however, for it involves the likelihood of confusing universals with *guṇa*'s. A "quality," to a Western reader, is a repeatable characteristic, such as the color blue. Lots of things can share the color blue at the same time, and we say they have the same quality. *Guṇa*'s, though, are not repeatable; they are particular characteristics of particular things.[15] The Vaiśeṣika distinguishes between the universal blueness *(nīlatva)*, which *is* shared among several individuals, and the *guṇa* blue-color *(nīlarūpa)*, which is not shared at all. Each blue substance is connected with its own blue-color, and all these distinct blue-colors are connected in turn to the "shared" universal blueness. We would be more apt to call the universal blueness a quality than the particular blue-colors; actually, the structure of Vaiśeṣika is so foreign to us that we have no words that make the distinction needed here.

Professor D. C. Williams has suggested appropriating the word "trope" for use in referring to abstract particulars.[16] Now of course in Vaiśeṣika the *guṇa*'s are not the only abstract particulars – the individuals of the first and third categories have an equal claim to that title. Nevertheless it seems reasonably unambiguous to use Williams' word "trope" to refer to members of the second category, as long as we have decided upon "substances" and "motions" respectively to refer to members of the first and third categories.

The classical list of twenty-four types of tropes is, from a logical point of view, a hopeless hodge-podge. The twenty-four are as follows: (1) color *(rūpa)*, (2) taste *(rasa)*, (3) smell *(gandha)*, (4) touch *(sparśa)*, (5) number *(saṃkhyā)*, (6) dimension *(parimāṇa)*, (7) separateness *(pṛthaktva)*, (8) contact *(saṃyoga)*, (9) disjunction *(vibhāga)*, (10) remoteness *(paratva)*, (11) proximity *(aparatva)*, (12) knowledge *(buddhi* or *jñāna)*, (13) pleasure *(sukha)*, (14) pain *(duḥkha)*, (15) desire *(icchā)*, (16) aversion *(dveṣa)*, (17) effort *(yatna)*, (18) weight *(gurutva)*, (19) liquidity *(dravatva)*, (20) oiliness *(sneha)*, (21) tendency *(saṃskāra)*, (22-23) merit and demerit, or the unseen principle *(adṛṣṭa)*, and (24) sound *(śabda)*.

Raghunātha eliminates number, separateness, remoteness and

[15] A rigorous proof of this statement will be found in the writer's article "Are the Vaiśeṣika 'Guṇas' Qualities?," *Philosophy East and West* 4 (October, 1954), 259-264.

[16] Donald C. Williams, "On the Elements of Being," *Review of Metaphysics* 7 (September, 1953), 7.

proximity from this list. He denies that there are tropes which cannot be perceived, attacks the notion of the old school that there is a separate kind of color-trope called "variegated-color," and shores up some of the logical characteristics of tropes with respect to their pervasion of their loci. Finally, he denies that there is any universal which is shared by the twenty tropes remaining on his list, admitting therefore that there is no categorial universal "tropeness" and casting doubt on the legitimacy of the whole category.

The third category, that of motions *(kriyā)*, is left comparatively untouched by Raghunātha. The old view that motions are the limiting conditions of time is rejected in favor of a new category of moments, and some motions are allowed not to pervade their loci. Otherwise the category remains undisturbed.

With respect to the fourth category, that of universals *(jāti)*, Raghunātha's position seems to be in a state of flux. In another work, the *Kiraṇāvalīprakāśadīdhiti*, he identifies universals with a kind of imposed property, evidently on the ground that there are no properties which satisfy the criterion of cross-connection.[17] However, in the course of the *PTN*, he makes constant use of universals. For example, he speaks of the universal elementality *(bhūtatva)*, of soulhood *(ātmatva)*, and many others. On the other hand, he argues that the absences of universals are not perceptible, and shows that a number of properties called universals by the old school (such as tropeness and existence) are imposed properties.

The category of inherence *(samavāya)* is considered to have just one member by the old school, but Raghunātha argues that there are as many inherences as there are cases of inherence. He keeps inherences as a separate category in this work.[18]

The classical sixth category of individuators *(viśeṣa)*, which was peculiar to old Vaiśeṣika alone and from which the name of the school comes, is eliminated entirely by Raghunātha. Individuators were individuals whose presence accounted for the fact that yogis were able to distinguish one atom from another and one soul from another. Raghunātha appears skeptical about the yogis' claims.

The seventh and last of the classical categories, that of absences *(abhāva)*, is considerably enlarged in this work. The traditional classification of absences was into mutual and relational absences, terms which will be explained in the commentary. Raghunātha adds to these certain relational absences of absences.

Raghunātha proposes eight new categories: (1) moments *(kṣaṇa)*, (2) possessednesses *(svatva)*, (3) causal-efficacies *(śakti)*,

[17]See footnote 47 below.

[18]Ingalls to the contrary. *Materials*, p. 76.

(4) causalities *(kāraṇatva)*, (5) effectnesses *(kāryatva)*, (6) numbers *(saṃkhyā)*, (7) absential connectors *(vaiśiṣṭya)*, and (8) objectification connectors *(viṣayatā)*. These will be discussed as fully as the writer's understanding allows in the commentary which follows. In order to understand the necessity of the three causal categories, however, as well as for the general understanding of a good deal of the rest of Raghunātha's concern, which is largely with certain kinds of causes, it will be well here to outline the old Vaiśeṣika view of causation.

According to the old school, there are three kinds of causes. The first of these is the inherence cause *(samavāyikāraṇa)*. Whenever an individual is produced, it inheres in some substratum or other. Thus if a pot is produced from two pot-halves, the pot is said to inhere in the pot-halves. (This is one of the peculiar uses of the inherence connector of which I spoke on page 8.) Or if a trope is produced in the pot - say the pot, being baked, becomes black - the substratum of the trope is the pot itself. Thus in the first case the pot-halves are the inherence cause, in the second the pot is the inherence cause. On the other hand, though potness inheres in the pot, the pot is not the inherence cause of potness because potness is not an effect - it is not produced, since universals are held to be eternal, and therefore it has no cause.

The second kind of cause accepted by the old school was called the non-inherence cause *(asamavāyikāraṇa)*. Speaking broadly, the non-inherence cause is any individual which is connected more or less directly to the inherence cause. However, this definition is evidently defective, as Viśvanātha points out.[19] An example of a non-inherence cause is the following: when a pot is produced, the two pot-halves are connected to their contact. This contact is therefore a non-inherence cause of the pot. In this case, the connection between contact and the pot-halves is a direct one; however, the connection may also be indirect, as in the following example. The color of the threads used to weave a cloth is the non-inherence cause of the color of the cloth. The color is in direct connection with the threads and so in indirect connection with the cloth. Since the cloth is the inherence cause of its color, the color of the threads is a non-inherence cause of the cloth's color. Raghunātha, the reader may be pleased to hear, will eventually dispose of the functioning of the non-inherence cause in cases where individuals are produced, reserving its function to those cases only where individuals are destroyed.

[19] *Siddhāntamuktāvalī* (hereafter referred to as *SM*), Viśvanātha's commentary on his own *Bhāṣāpariccheda (BhP)*, verse 18.

The third kind of cause is the necessary condition (*nimitta-kāraṇa*). There are two kinds of necessary conditions, those which are general (*sādhāraṇa*) and those which are specific (*asādhāraṇa*). The general conditions are those individuals upon whose functioning all production depends. Among these general conditions are god and the merit and demerit of the individual souls. The specific conditions of an individual x are those individuals other than the inherence and non-inherence causes whose activity or operation help bring about the production or destruction of x. Thus when a cloth is being produced by weaving threads together, one of the specific necessary conditions is the shuttle, another the loom.

For the sake of simplicity and consistency, Raghunātha finds it advisable to revise and add to the metaphysical framework of causation, although the functions of inherence cause and necessary condition are not tampered with. It may seem odd that simplicity can be gained by adding three categories of individuals, but one must remember that the simplicity in question for Raghunātha is that pertaining to sheer numbers of individuals and not to kinds.

It was noted at the outset that the aim of the Vaiśeṣika philosophers, and of their Navya-nyāya heirs, is to analyze the world we know into its ultimate constituents. These constituents we decided to call individuals, and the foregoing pages suggest the sorts of individuals there are. There remains the further problem, for the Naiyāyika, of devising an adequate and accurate way of setting forth the structure of this universe of individuals.

Several critics of Navya-nyāya have spoken negatively of the difficult style of expression used in Navya-nyāya treatises. One gets the impression from these critics that the Naiyāyikas were indulging in hair-splitting and sophistry, were in fact trying to confuse their readers with their technical language rather than using it in an intelligible fashion. And it is certainly true that the style of late Nyāya is about as formidable as one could imagine. While the earliest Nyāya and Vaiśeṣika treatises were written in comparatively straightforward classical Sanskrit, by the time of Gadādhara and Jagadīśa the Naiyāyika had come to frame his system almost entirely by means of technical terms of the sort that have been explained above. Furthermore the syntax of the language used by Gadādhara and other late Naiyāyikas features to a much greater extent than in ordinary classical Sanskrit the presence of long compounds, one such compound sometimes extending over a full page of writing.

What was the reason for this development in style within the Nyāya-Vaiśeṣika system? I suggest that it was the general realization on the Naiyāyikas' part that the ultimate end of their cogitations would be a kind of map or picture of the universe. The

"technical language" of Navya-nyāya is not, I suspect, so much a language as the groping for a kind of picture of the universe of individuals in their relationships with one another.

It is well to recognize that the criteria by which we evaluate the success of a map or a picture are not those by which we evaluate a language. A good map should be as accurate as possible, for instance, but a language may be admirably suited for the purposes of ordinary communication and yet have no words for the more subtle items of our experience. On the other hand, a language is the worse for utilizing sounds which the people who use it find difficult to pronounce, or an alphabet the characters of which are difficult to write, whereas it is more or less irrelevant to the success of a map what symbols are used, or at any rate the choice of symbols is made on different grounds.

Besides such things as road-maps and photographs, we have come in recent times to know a further kind of mapping or picturing technique, exemplified in the use of mathematics to devise formulae reflecting the correlations discovered by physicists and other natural scientists. It is no criticism of a mathematical formula that it does not communicate itself easily - that is to apply a criterion of language to something which is not essentially linguistic.

Still there are, of course, points of similarity between maps and languages. One important one is that both make use of symbols, and many maps use symbols drawn from some language or other - an ordinary road-map, for instance, uses many English words, even if one does not count proper names. And so it is perfectly reasonable to imagine a "map" which has many superficial resemblances to a language, by virtue, for instance, of its making use of some symbols and rules of combination of symbols drawn from some ordinary language. It is particularly interesting to speculate as to what we should call such a system - would we call it a "map" or rather, perhaps, a "technical language"? At any rate, there seems to be a kind of continuum extending from vague, ambiguous, inaccurate ordinary languages, through languages filled with technical terms, to clear, unambiguous, accurate maps of the kind exemplified by the mathematical physicist's formulae.

My suggestion, then, is that the technical language of the Navya-naiyāyikas is more a map than a language - that as through the years the Nyāya philosophers developed their picture of the world of individuals, the structure of that picture and the symbols used to refer to the items being pictured began to change, in the interest of greater clarity, lack of ambiguity, accuracy, simplicity, and consistency, which are primarily criteria of maps rather than of languages.

If this is so, it should follow that the criticism directed toward the Navya-nyāya technical "language" on the ground of its near-unintelligibility is no more cogent than would be the same criticism directed at a mathematical formula. The Naiyāyikas' style, it may be conjectured, is not intended for the purpose of communicating more easily, any more than the mathematicians' is; it is intended rather to provide a simple, accurate framework for the presentation of the world as it really is.

In short, the Navya-nyāya aim is not so far away from the apparent aim of those contemporary philosophers of this day and age in the West who wish by use of the techniques of symbolic logic to find a simple and accurate way of setting forth the picture of the world presented by the natural sciences. The structural aspect of the Naiyāyikas' scheme is more fairly judged by comparing it with contemporary analytic philosophy in England and America than by comparing it with earlier stages of Nyāya-Vaiśeṣika thought.

This conclusion may come as a pleasant surprise to some who have despaired of finding any common ground for assessing the value of philosophical systems of different traditions. It is also surprising, perhaps, that such a fruitful comparison is to be found with such an apparently iconoclastic point of view as that of the analytic philosophers.

Up to this point I have suggested the similarity of purpose with regard to structure or form of expression between the Navya-naiyāyika and the analytic philosopher. However, I think there are other analogies to be found, which may stem in part from those already mentioned. One is the search for and use made of basic entities or logical "atoms of the system" on the part of analytic philosophers and Navya-naiyāyikas.

The contemporary philosopher Nelson Goodman, in his book *The Structure of Appearance,* presents a system which in its intent and to some extent in its basis does not differ largely from that of Navya-nyāya. The system he builds in the latter chapters of his book is one which adopts as basic entities "qualia," which are "single phenomenal colors, sounds, degrees of warmth, and visual locations."[20] On the face of it, one is tempted to suppose that Goodman here starts from a basis of individuals of the same kind as those of which the Navya-nyāya makes use, although the Naiyāyika apparently is less interested in constructing the world from a basis which has such a small number of kinds of entities as Goodman's does.

The reader who is interested in understanding the underlying

[20]Nelson Goodman, *The Structure of Appearance* (Harvard University Press, 1951), p. 156.

attitude of Navya-nyāya may well benefit more from a study of Goodman's book, for instance, than from a reading of translations of old Nyāya sources. For one thing, the peculiarities of the Nyāya outlook are brought into bold relief when one has a different but very similar theory with which to compare it. For another, the Naiyāyikas, and most Indian writers on Nyāya, regardless of the excellence of their scholarship, are not in such a good position to appreciate the underlying assumptions and attitudes which go to make up the Nyāya point of view. The intricacy of the details of Navya-nyāya tends to obscure the broad line for those who are close to the system. This is not, of course, meant to suggest that one must not understand a good deal of the actual metaphysics of the school; it is possible, however, to overdo scholarship at the expense of understanding.

The commentary on the *PTN* here offered is addressed to the reader who is willing to go into some detail but is primarily interested in what specific philosophical insights can be derived from Raghunātha's work. The commentary does not, for the most part, attempt to draw any conclusions, but rather tries to place the interested reader in a position where he may draw his own. No effort has been spared to get to the bottom of the interpretation of a passage, even when this involves an excursion into technicalities; however, I have tried to avoid all details of the system which are not necessary for a thorough understanding of Raghunātha's work.

A few remarks are in order with regard to the translation which follows. It is based on the *Pandit* edition, published first in the pages of that magazine and reprinted as a volume in 1916. In translating I have often made use of material in the commentaries by Raghudeva and Rāmabhadra Sārvabhauma, which are also printed in the same edition.[21]

Each portion of the transliterated text is introduced by numbers which refer to page and line of the *Pandit* edition. Although it is impossible to be thorough in keeping the literal translation of the Sanskrit apart from the English which must be added to make Raghunātha readable for a Western audience, an attempt

[21]Raghudeva's work is entitled *Padārthakhaṇḍanavyākhyā*, and Rāmabhadra's, *Padārthatattvavivecanaprakāśa*. The issues and pages of *The Pandit* in which the edition first appeared are as follows: 25 (1903), Nos. 3-5, pp. 1-48; 26 (1904), No. 6, pp. 49-64; 27 (1905), Nos. 10-12, pp. 65-80; 28 (1906), Nos. 6-7, pp. 81-88; 31 (1909), Nos. 4-7, pp. 89-104; 34 (1912), Nos. 7-9, pp. 105-112; 35 (1913), Nos. 7-12, pp. 113-128; 36 (1914), Nos. 1-3, pp. 129-132. The editor is Pandit Vindhyeswari Prasada Dvivedin.

has been made to do this in part by enclosing in parentheses all English words which do not specifically translate anything in the text. An exception is made in the case of articles; Sanskrit has no articles, but I have not enclosed the English articles needed in the translation. I have tried to provide an English equivalent for each Navya-nyāya term, although sometimes I have had to explain how such an equivalent might be misleading if care is not taken in its use. A few Navya-nyāya terms defy translation, but in this text they are very few. When page references to the *PTN* are cited by line, even when the material referred to is in one of the commentaries, one should always count the lines from the top of the page.

PADĀRTHATATTVANIRŪPANAM

A Demonstration of the True Nature of the Things to Which Words Refer

Text 1.1-3: *Oṃ namaḥ sarvabhūtāni viṣṭabhya paritiṣṭhate Akhaṇḍānandabodhāya pūrṇāya paramātmane. Atha padārthatattvaṃ nirūpyate.*

Translation: Om! Salutation to the Supreme Soul, who is perfect, of unending bliss and understanding, who, pervading all things, is always present.[1]

Now the true nature of the things to which words refer (is to be) demonstrated.

Commentary: Having stated the business of the book, Raghunātha immediately addresses himself to the first problem, that of analyzing statements of the form "x is to the east of y" and "x exists now." The traditional theory was that the first of these judgments referred to an individual called "space" (*dik*) and the second to an individual called "time" (*kāla*). The reasoning which led the old school to accept the existence of these individuals is as follows.

As the sun goes around the earth (as the old Naiyāyikas supposed), its rays come into contact with substances such as, for example, a certain mountain.[2] Evidently they were thinking of the experience of watching the early morning rays of the sun first strike a mountain in the east - the word for the mountain in question means literally "the eastern mountain." An observer, sitting in front of his hut watching the sunrise, tells time, somehow, by reference to this contact. For example, he will say, with reference to this contact and speaking of a pot which he holds

[1]This verse is also found at the beginning of Raghunātha's *Dīdhiti* on the *Anumānakhaṇḍa* of Gaṅgeśa's *Tattvacintāmaṇi*, and at the beginning of *Ātmatattvaviveka*. Also cf. *Materials*, p. 11.

[2]Sadananda Bhaduri, *Studies in Nyāya-Vaiśeṣika Metaphysics*, Bhandarkar Oriental Series 5 (Poona, 1947), p. 184, n. 3.

in his hands at that moment, "this pot exists now." The first problem the Nyāya-Vaiśeṣika school found in this situation appears to have been the problem of what connector could be said to connect the contact on the one hand with the pot on the other.

In this case, the contact between the sun's rays and the mountain cannot inhere in the pot, since it already inheres in the pair consisting of the sun's rays and the mountain. The contact cannot be connected to the pot by contact, since contact itself cannot come into contact with anything, not being a substance. And there is no direct self-linking connector which could connect two such individuals as this contact and the pot, although it will not be clear why until we come to understand the whole notion of self-linking connectors better. The Naiyāyikas conclude that the contact and the pot must be connected indirectly through the mediation of some other individual.

Having found it necessary to recognize a mediating individual between the pot and the contact of the sun's rays with the eastern mountain, the Naiyāyikas were faced with the problem of which among the seven categories the mediating individual could be placed in, if any. The criterion guiding their solution of the problem was that of simplicity. They chose to introduce a substance, big-time, qualified portions of which served to relate the contact to the pot in a way which involved the least possible number of individuals. Direct connections being precluded, the simplest indirect relation that could be imagined was the following: the contact between the rays and the mountain inheres in that pair of substances, those substances are in turn in contact with a certain little-time (a qualified portion of big-time), and that little-time is in contact with the pot. Contact is a trope which can only occur between two substances. It therefore follows that time must be a substance.[3]

An analogous argument leads them to the conclusion that big-space is a substance which indirectly connects other individuals in the way which leads to judgments such as "this is east of that." The intuitive difference between big-time and big-space to a Naiyāyika apparently was that the former gives rise to judgments of the form "this is older than that" while the latter gives rise to judgments of the form "this is east of that." They are hard put to justify this intuitive difference in terms of the system, however, and it is at this weakness that Raghunātha drives his first blow against the traditional classification.

[3]Kuppuswami Sastri, *op. cit.*, p. 91; Bhaduri, *op. cit.*, p. 185.

Text 1.3-3.1: *Tatra dikkālau neśvarād atiricyete mānābhāvāt tattannimittaviśeṣasamavadhānavaśād īśvarād eva tattatkāryaviśeṣāṇām upapatteḥ.*

Translation: Among (individuals), space and time are nothing but god, since (there is) no proof (that they are distinct from god). For wherever particular effects of x arise, these arise simply from god by (his) being combined with particular causes.

Commentary: Both commentators explain the "particular causes" to be god as limited by this or that *upādhi* of time or this or that *upādhi* of space. The "particular effects" Raghunātha is speaking of are statements like "this is older than that," "this is east of that," and other judgments involving temporal and spatial relationships. He is saying in this passage that all such judgments arise from one all-pervasive individual, which he calls god. The argument involves two steps: first, that there is no good reason ("no proof") why big-space should be a distinct substance from big-time, and second, that big-space-time need not be a distinct individual from god.

I have been careful in distinguishing "big" time *(mahākāla)* from "little" time *(khaṇḍakāla)* because the distinction is important for understanding the first of these two steps. The specific piece of time which causes the judgment "x exists now," for instance, is a little-time; i.e., it is a big-time qualified by specified individuals, namely, the pot, the rays and the mountain. Now a given little-time can be distinguished from a given little-space on the ground that the one causes temporal judgments and the other causes spatial judgments, which is to say that each is limited by different individuals. But it does not follow from this that big-time and big-space are not the same individual, for a little-time might be a limited portion of the same individual as a little-space is. The first step Raghunātha takes, then, is to identify big-space and big-time, thus reducing the number of individuals in the universe by one.

Our author faces a more difficult problem in taking his next step, in arguing that big-space-time is the same individual as god. The Naiyāyika's god is a soul differing from the individual souls in certain ways.[4] We have seen that it is all-pervading (1.1-3), and since it is thus co-extensive with big-space-time, argues Raghunātha, one may consider that the spatial and temporal judg-

[4]Umesh Miśra, *Conception of Matter according to Nyāya-Vaiśeṣika,* (Allahabad, 1936), p. 403.

ments are merely the results of imposing certain limiting conditions on the one, all-pervading individual, god.

In this further step, however, Raghunātha seems to have progressed to a position which even his followers refused to accept. Miśra cites a philosopher named Venīdatta (without, unfortunately, giving us the full reference to the work he wrote) who argues that if Raghunātha's view were accepted, the individual souls could also be construed as being formed by limiting conditions on god, and the characteristic Vaiśeṣika doctrine of the plurality of souls would be lost.[5] Whether this is the reason the Naiyāyikas who followed Raghunātha failed to adopt this reform I cannot say. Nor is it possible for me to say at present exactly how, if at all, Raghunātha would have been able to answer the question raised by Venīdatta, although as we shall see there is some doubt whether in the last analysis Raghunātha considers god to be a substance at all. If god is not a substance, the individual souls, which are substances, could not be limited portions of god.

At any rate, Raghunātha proposes to identify what were formerly three distinct individuals. And one may infer from the next sentence that he considers the only argument he needs to face on this score to be the intuitive feeling that judgments about space and time and god are different sorts of judgments.

Text 3.1-2: *Pareṣām ekaikasmād digāder iva vilakṣaṇānām prācyādi-vyavahārāṇām.*

Translation: For according to the opposing view, the variety of judgments such as "(x is) to the east of (y)," etc., can be explained by (reference to) a single (connector), such as space, etc.

Commentary: That is to say, Raghunātha is arguing that since his opponents of the old school admit that all sorts of differing judgments about spatial direction - like "Patna is east of Benares," "the lamp is above the floor" - are caused by one substance limited in various ways, and likewise all sorts of temporal judgments which differ among themselves - e.g., "Devadatta was born on Diwali, 1918" and "the dog went to sleep five minutes before the cat" - are caused by one substance limited in various ways, they should have no difficulty admitting that all four of these judgments are caused by one all-pervading individual. He is stressing that he and his opponents at any rate have in common the notion of a common substratum limited by its connecting other individuals. This section

[5] *Ibid.*, p. 193.

is intended, one may suppose, as a bit of persuasion; the main reasoning has already been given, namely, that the opponent has no proof that big-space, big-time and god are distinct, and that Raghunātha's view is better because it eliminates two unnecessary individuals from the universe.

Raghunātha's identification of space and time was not new in the history of the system. Indeed, the absence of any clear-cut distinction between space, time and a third element (*ākāśa* or ether, to which we shall come in a moment) in the *Vaiśeṣikasūtras* has evidently led at least one commentator within the school to suppose that Kaṇāda himself identified these individuals with one another;[6] and in the *Saptapadārthī* of Śivāditya we are told explicitly that these three individuals are actually one and are only distinguished by their limiting conditions.[7]

To the critical reader oriented toward Western philosophy it appears that the interesting questions about space and time have not been raised at all in this discussion. He will want to know more, for example, about exactly which other individuals are appealed to as limiting conditions whenever a detailed account of a certain temporal or spatial judgment is to be expounded. This topic will receive extended treatment in due course (under the discussion of the "moment," 58.4-60.4). The reason, or one reason, why Raghunātha does not give his arguments about these conditions here is that his plan of attack involves first sweeping away a number of individuals which were supposed to be directly connected to space and time in certain ways (e.g., the tropes farness and nearness, 29.4-30.2), and only then introducing a new category of individuals which will limit god in the ways necessary to account for temporal and spatial judgments.

Having effected a reduction of three individuals to one, Raghunātha next argues that a fourth all-pervasive individual, ether *(ākāśa)*, can also be identified with god. The traditional argument for the separate existence of an individual called "ether" runs as follows.[8]

There is a kind of trope which we grasp when we hear and which we call "sound" *(śabda)*. (That sound must be a trope and not a substance is the subject of one of the oldest debates among the

[6]B. Faddegon, *The Vaiçeṣika System* (Amsterdam, 1918), p. 210; A. B. Keith, *Indian Logic and Atomism* (Oxford, 1921), p. 237.

[7]*Saptapadārthī* of Śivāditya, ed. and trans. D. Gurumurti (Madras, 1932), p. 19.

[8]Following *SM* on *BhP* 44.

brahmanical schools, a debate which I need not outline here.) Since a sound is a trope, it must inhere in a substance, as all tropes do. But what substance? None of the other kinds of substances will do. The physical substances - earth, air, fire and water - cannot any one of them be the substance sound inheres in, for several reasons, two of which are worth mentioning. First, whereas as long as a chair exists, one can always feel it providing one puts one's fingers in the right position, but only so long, this is not true of the substratum of sound: sometimes, no matter how hard one listens, one can't hear anything, and yet we should not be willing to say that the material which carries the sound had gone out of existence. Second, in getting the sensations appropriate to the physical elements - i.e., in touching, smelling, tasting and seeing - the sense-organ, according to the Naiyāyikas, comes into contact with the individual sensed at the place at which the individual is located, whereas in the case of sound this is not so; sound travels from the individual producing it to the ear.[9]

The remaining possible substances in which sound could inhere are the internal organ and the soul. The internal organ is not particularly like our "mind," the seat of consciousness, but is rather the organ which collects the sense-impressions from the external sense-organs and hands them on to the soul, which is the actual seat of consciousness in the Nyāya system. Having no specific kind of trope which it apprehends, but rather collecting the tropes apprehended by the other organs, it cannot be the substratum of sound. That leaves us with one remaining possibility, the soul. The old school adduces various arguments against the soul being the substratum of sound: for instance, the only other kinds of tropes of which the soul is considered to be the residence are internal ones, like pleasure, pain and knowledge, and a sound, being heard by many souls, cannot be an internal trope. There are other arguments, including the one offered by Raghunātha below in 4.4-9.1.

Having eliminated all the other substances as possible substrata of sound, the old school found it necessary to postulate a ninth substance, ether. Raghunātha, however, takes issue with this solution.

Text 3.3-4.1: *Śabdanimittakāraṇatvena kḷptasyeśvarasyaiva śabdasamavāyikāraṇatvam.*

[9]Bhaduri, *op. cit.*, pp. 169-170.

Translation: God, who is accepted as a (general) necessary condition of sound, is (also) its inherence cause.

Commentary: Thus Raghunātha proposes that ether be eliminated entirely in favor of the already postulated individual god. God is a soul, but the objection mentioned above about the internal nature of a soul's tropes would not apply to god's tropes: sound might be an "internal" trope of god and yet, since god is all-pervading, it could be shared by all or any individual souls, since all individuals reside in god.

Raghunātha points out, then, that his opponent will admit, as he will, that god is a general necessary condition of sound; and he suggests that, rather than postulate an ether, god also be taken to be the inherence cause, i.e., the substratum, of sound. The result is to save commitment to another individual.

He then cites an opposing argument:

Text 4.1-2: *Śabdaḥ tajjanyas tadadṛṣṭajanyatvāt sukhādivad iti punar aprayojakam.*

Translation: But (the following argument does) not disprove my position: "Sound (could equally well be inherence-)caused by the individual soul, since its necessary condition (is) the merit and demerit of the individual soul, just as pleasure, etc., (is)."

Commentary: This argument is formed in the traditional way: first, the thesis is stated ("sound is inherence-caused by the individual soul"), then the reason ("because its necessary condition is the merit and demerit of the individual soul"), and thirdly an example is given to justify the general argument. If fully expanded, this third part of the argument would read, "that whose necessary condition is the merit and demerit of the individual soul is inherence-caused by the individual soul, as witness, for instance, the case of pleasure." This is the short, working form of the *nyāya* or syllogism. The argument, it will be perceived, hangs on the example. What the opponent argues here is that sound is exactly analogous to pleasure in that its necessary condition is the same thing as pleasure's, and therefore that it is completely analogous to pleasure in that it is inherence-caused by the same thing as pleasure, namely, the individual soul.

Raghunātha says that this argument does not disprove his position and states why.

Text 4.3-4.4: *Adṛṣṭasya śabdajanakatve 'pi tadāśrayasya janakatve mānābhāvāt....*

Translation: For even if I admit that (the individual soul's) merit and demerit (is) the necessary condition of sound, (there is) no proof that its inherence-cause (is) the inherence-cause of sound....

Commentary: If Raghunātha had argued his case in full, it would have consisted in finding a counter-example to the opponent's example of pleasure. His point is that the analogy given by the opponent is not a valid one, that sometimes it holds, but sometimes not. A case where it does not is that of the color-trope of a certain book, which comes into being through the necessary condition of someone's merit and demerit and does not inhere in that person's soul but rather in the book.

"But," the opponent might continue, "even granted the analogy doesn't work in every case, still why should you suppose that it does work in the case of god and not in the case of the individual soul? Why is my hypothesis any worse than yours?" Raghunātha answers:

Text 4.4-9.1: ... *asmadādeś ca śabdasamavāyikāraṇatve 'haṃ sukhādimān itivad ahaṃ śabdavān iti pratītyāpattiḥ.*

Translation: ... and if I, or any individual soul, (were) the inherence-cause of sound, then the result (would be that the judgment) "I am sounding" (would be as) correct as (the judgment) "I am happy."

Commentary: The opponent, Raghunātha says, forgets that one of the main purposes of the system is to provide metaphysical correlates for distinctions found in experience. It would be a categorial mistake to suppose that sound stands to people as happiness does; rather, sounds stand to bells as joys do to people. Our ordinary ways of speaking show this: we may and do say either, "the bell is sounding" or, "the air is resounding," but never, "I am sounding." Here ordinary Sanskrit is analogous to ordinary English.

Therefore, the personal soul is a poor choice as the substratum of sound; what is needed is an all-pervading substance which can support sound wherever it is apprehended. Since space and time are now nothing but god, god himself appears to be the obvious choice. Again Raghunātha adds a cheering word for his opponent:

Text 9.1-10.2: *Śrotram api ca karṇaśaṣkulīvivarāvacchinna īśvara eva yathā pareṣām tathāvidham ākāśam.*

Translation: And so (according to my theory) the organ of hearing (is) just god limited by the cavity (which is) the auditory passage

of the ear, just as according to you that organ is ether limited in exactly the same way.

Commentary: The organ of hearing was peculiar, for the Nyāya-Vaiśeṣika, in that it was merely a portion of the all-pervading ether; the sound waves passed right into the organ of hearing itself, unlike the other senses which grasp tropes whose substrata are not the same individuals as the organs themselves. Raghunātha reassures his critics that he also accepts this peculiarity, merely substituting god for the unnecessary ether.

Raghunātha now turns to another substance, which was mentioned in passing in the last section, an individual for which the Sanskrit word is *manas*. The translation of this word presents another problem of a kind we have met before: there is no very close English equivalent. Most English-language expositions of Nyāya adopt the translation "mind." However, the *manas*, according to the Nyāya tradition, is not the seat of consciousness, nor the individual which receives sense-reports from the sense-organs and translates them into knowledge; those functions are performed by the soul. The *manas* is an individual which mediates between the senses and the soul by coming into contact with one of the sense-organs at a time, thus accounting for the activity we call "focussing the attention." It also receives "internal" sensations such as pleasure, pain, and so forth, which are tropes belonging to the individual soul but are "grasped" by the *manas* which in turn passes the sensations along to the soul. Perhaps the closest equivalent we can find in English is "internal organ."

What Raghunātha has to say about the internal organ is rather mysterious, because he doesn't take the trouble to explain his meaning at all completely.

Text 10.3: *Mano 'pi cāsamavetaṃ bhūtam.*

Translation: And further, the internal organ (is) elemental and (does) not inhere in anything.

Commentary: In the old system, the nine kinds of substance were divided into those which were elemental *(bhautika)* and those which were not. Earth, air, fire, water and ether were considered to be elemental, while time, space, soul and the internal organ were not. The principle behind the distinction apparently was to separate those substances which possessed sense-perceptible tropes from those which did not. Raghunātha has eliminated ether from the list of elemental substances and has reduced the non-elemental substances to the soul and the internal organ. Now he wants to

reduce the non-elemental substances to one, namely, soul. That is, he wants to make the internal organ an elemental substance.

The addition that the internal organ does not inhere in anything is not new in the system, but possibly is mentioned so that we may grasp exactly what notion Raghunātha has of the internal organ. His notion is that the internal organ is a substance of the smallest sort, the *truṭi* or element (see 11.2-5), i.e., a substance which does not inhere in anything. The only thing a substance can inhere in is its inherence cause (a pot inheres in its pot-halves, for instance), but an element, for Raghunātha, is a substance without an inherence cause.

Exactly what kind of element the internal organ is Raghunātha does not say. We do know, however, that an element is an individual which is big enough to be in contact with more than one substance at a time. On the old view, the internal organ was not an element but an atom, and an atom was so small that it could only be in contact with one substance at a time. It was because of this atomic dimension that the internal organ's functioning could be said to account for the fact that we only receive one kind of sensation at a time. This focussing of the attention was one of the two functions assigned to the internal organ (the other being the function of receiving internal sensations). An evident objection to Raghunātha's revision, then, is that it renders the internal organ unable to perform this function of picking out one sensation at a time, since as an element it can be in contact with more than one sense-organ. Raghunātha's answer is that on his view the internal organ isn't to have the function in question.

Text 10.3-11.1: *Adṛṣṭaviśeṣopagrahasya niyāmakatvāc ca nātiprasaṅga ityāvayoḥ samānam.*

Translation: And since we both agree that the additional qualification of the merit and demerit (of the individual soul is) necessary (to account for the non-simultaneity of perception, there is) no over-extension.

Commentary: The merit and demerit (or *adṛṣṭa*) of an individual soul are the tropes which a soul gathers in the course of his previous activities. Miśra explains this passage as follows:

The Neo-Naiyāyikas continue here that even according to those who hold that the *Manas* is atomic, when there is the eye-sight and the *Manas*-contact, there does exist the contact of the organ of touch also; but its non-cognition is believed to be due to a particular kind of *adṛṣṭa*.

In the same manner, add the Neo-Naiyāyikas, *adṛṣṭa* would determine the non-simultaneity of cognitions in this case also.[10]

It is dubious what function Raghunātha thinks the internal organ does perform. Rāmabhadra, one of the two commentators represented in our edition, argues that there is no evidence to show that the internal organ has anything to do with internal sensations of pleasure and pain (the reception of which was the function of the internal organ on the old view), and concludes that there is no more proof for an internal organ than the mere fact that we (and perhaps more important, scripture) use the word *manas*.[11] Raghudeva, the other commentator, dissents from Raghunātha's argument entirely. We lack enough information to say what use, if any, Raghunātha might find for the internal organ.

The next section, which sets forth Raghunātha's criticism of the old Vaiśeṣika atomic theory, has been carefully explained by Bhaduri, and may be translated here with a minimum of commentary.[12] The old theory held that the ultimate substances were *paramāṇu*'s or atoms, which were indivisible and also imperceptible. Two such atoms combined to produce a *dvyaṇuka*, which was also imperceptible. Three *dvyaṇuka*'s produced a *tryaṇuka*, *trasareṇu* or *truṭi*; this is the "element," which was supposed to be the smallest perceptible substance. The reason for the postulation of entities below the threshold of perception depends mainly on the following argument from analogy: everything which is visible has parts, like a pot; therefore even the smallest perceptible substance must have parts. This creates the necessity for having imperceptibly small substances.[13] But, in order to avoid an infinite regress, there must be some one smallest imperceptible substance; thus the supposition of a *paramāṇu*.

Raghunātha's change here is sweeping; he eliminates all imperceptible substances.

Text 11.2-5: *Paramāṇudvyaṇukayoś ca mānābhāvaḥ truṭāv eva viśrāmāt. Truṭiḥ samavetā cākṣuṣadravyatvāt ghaṭavat te ca samavāyinaḥ samavetāḥ cākṣuṣadravyasamavāyitvād iti cāprayojakam.*

[10]Miśra, *op. cit.*, pp. 150-151. His exposition follows Raghudeva's commentary.

[11]*PTN*, p. 86, lines 17 ff.

[12]Bhaduri, *op. cit.*, pp. 66-69.

[13]The reasons for the distinction of *two* such imperceptible entities, and counter-arguments, will be found in Miśra, *op. cit.*, pp. 114-117.

Text 15.1-3

Translation: And (there is) no proof (that there are) atoms and double atoms, since one may rest (the regress) merely in the element. (The following argument) fails to prove (the doctrine of the old theory): "an element inheres (in its parts), because (it is a) visible substance, like a pot. And (those individuals which are) inhered in inhere in (their parts), because (they are) the inherent causes of visible substances."

Commentary: The opponent's argument offered here states what we may call a "categorial rule." If we were building the system, we might phrase it thus: "if x is a substance and x is visible, or if x is an inherent cause of a y such that y is a substance and y is visible, then x inheres in its parts." The justification for a categorial rule lies in its satisfaction of the criteria mentioned in the Introduction. One often backs up the statement of a categorial rule with an example. The example shows that the proposed rule matches experience and suggests that a fundamental analogy has been discovered. It is then up to the opponent, here Raghunātha, to show that the rule violates some one or more of the other criteria.

In this case, the proposed rule produces an infinite regress.

Text 11.5-15.1: *Anyathā tādṛśasamavāyisamavāyitvādibhir anavasthitatatsamavāyiparamparāsiddhiprasaṅgāt.*

Translation: For (if the opponent's argument were correct), the result (would be) a whole series (of inherence causes) beginning with the inherence cause of (the double atom) and regressing *ad infinitum* to the inherence cause of the inherence cause of (the double atom), and so on.

Commentary: A possible objection, Rāmabhadra says, is, "But, since we do use the word *aṇu* (small, atomic), there must be a size to which this word refers, and so there must be a substance this size."[14] Raghunātha answers:

Text 15.1-3: *Aṇuvyavahāraś cāpakṛṣṭaparimāṇanibandhano mahaty api mahattamād aṇuvyavahārāt.*

Translation: And the statement "(x is) small" implies (simply) that (x is) smaller than (some y), for (we) use the word "small" to describe even a large entity in its relation to something still larger.

[14] *PTN*, p. 87, line 14.

Commentary: That is, *aṇu* or "small" is a comparative term and refers to no definite size.

Raghunātha now turns to the question, how big is god? The old school held that god had eight kinds of tropes, of which dimension was one. They argued that god possessed the largest dimension possible, since we don't know of any place where he isn't. Insofar as he has this greatest dimension, or all-pervading character, he is similar to space, time and ether, as we have already seen; and it seems to be partly by virtue of this similarity that Raghunātha's identification of these four individuals makes any intuitive sense to us. The reader may well be dismayed, then, at the next remark:

Text 15.4-19.2: *Īśvarasya ca parimāṇavattve mānābhāvaḥ dravyatvasya truṭitvāder iva parimāṇasyāsādhakatvāt.*

Translation: Further, (there is) no proof (that) god possesses dimension, for (his) being a substance can no (more) prove (that he has) dimension (than it can prove that he) is an element.

Commentary: God, says Raghunātha, has no size at all - he isn't that sort of thing. On the old theory, all the substances had some sort of size. But the only characterization of dimension that we find in the texts merely tells us that dimension is the kind of trope which causes us to say "this is bigger than that" or "this is longer than that." All that we can suppose Raghunātha to be saying here is that god isn't bigger than or smaller than anything, and that we don't want to say that he is. One might argue with him about this. For example, in the *Katha Upanishad* we find the famous text, "*aṇor aṇiyān mahato mahīyān*," telling us that Brahman is "smaller than the small and bigger than the big," which would suggest that some people do want to say that god is bigger than other things.[15]

However this may be, the next sentence is even more difficult to understand.

Text 19.2: *Tasya cāparimitāvṛttitvam asiddham.*

Translation: And (the argument that god) has unmeasurable nonresidence (is) unproved.

Commentary: To say something has "unmeasurable non-residence" is to say that one cannot find a place where it doesn't reside.

[15]*Kaṭha Upanishad* 2.20. Robert Ernest Hume, *Thirteen Principal Upanishads* (London, 1934), p. 349.

Rāmabhadra's commentary suggests that this position is only a halfway point. He says, "Actually, there is no proof that god is a substance at all."[16] This suggestion is indeed plausible if we consider Kaṇāda's definition of a substance in *Vaiśeṣikasūtras* I.1.15: "A substance is that which possesses tropes *and motions* and is the inherence-cause of (other) substances."[17] God, it would appear, does not move, since everything moves in him.

The foregoing few paragraphs have consisted of speculation founded on meager evidence. But since at this point we will leave the topic of all-pervasive individuals, we may attempt to sum up Raghunātha's conception of the all-pervading framework of the universe. It apparently comes closer to the theory of Henry More than to that of Newton; the former, Boodin points out, "includes space in God rather than God in space."[18] But it outstrips any Western theory of which I am cognizant in making time a "thing" and then identifying it with god. Nevertheless, in this age when we are more and more aware of how closely space and time are intertwined, the Indian notion may be suggestive, however bad Raghunātha's reasons may be deemed to be. Likewise, one may find interest in the identification of a soul with space and time. The notion that the material and the spiritual are at bottom one is well-known as basic to much of Indian metaphysics, which takes its start from the Upanishadic identification of Brahman and Ātman, the underlying cosmic principle and the individual soul. At the point in the history of Indian philosophy at which Raghunātha was writing, there was much difference of opinion between the Naiyāyikas and the Vedāntins, the former holding a pluralistic realism whereas the latter held a monistic idealism. The Naiyāyika who was interested in reducing the number of individuals had always to keep in mind Vedāntin arguments and make sure that he didn't prepare the way for reduction of all differences to one identity. In what we have seen, Raghunātha ventures further in that direction than most of his brothers were willing to follow him. But his theory only gives consciousness to space and time, and not to everything, as the idealist's does. Raghunātha's god is an omnipresent, omniscient receptacle; some of the stuff which swims around within him is conscious, and the rest is not.

[16]"Vastutaḥ punarīśvarasya dravyatve 'pi mānābhāvaḥ." *PTN*, p. 88, lines 2-3.

[17]My translation and emphasis.

[18]J. E. Boodin, *God* (New York, 1934), p. 87.

The next topic is entirely unrelated to the previous one; it has to do with a doctrine of the old school that there were unmanifested tropes, colors which were not seen, smells which no one smelled, and so forth. These tropes supposedly inhered in certain substances but were not perceptible. The early Naiyāyikas argued for the existence of unmanifested tropes on the following grounds:

1) We have seen that, on the old theory, a middle-sized woody substance, like a chair, is produced ultimately from imperceptible woody atoms. In just the same way, the old Naiyāyikas argued, the color of the chair (its particular color-trope, that is) is produced ultimately from the color-tropes which inhere in the woody atoms. And since the woody atoms are imperceptible, their tropes must be also.

2) The old theory contained the odd view that we never perceive a substance unless it has a color. This may sound odder than it is, however. Remember that the Naiyāyika supposes that we may see with our eyes *both* a substance *and* its color-trope. A further distinct question was whether we may perceive with our fingers both a substance and its touch-trope. The answer, as far as I can tell, was, yes, if a certain condition is satisfied.[19] The condition was that the substance in question must be visually as well as tactually perceptible - i.e., it must also have a color. In cases where we seem to feel something but cannot see it due to its lack of color, for example, this theory tells us that we do not feel the substance, but rather infer its existence as the substratum of the touch-trope which we *are* feeling. A troublesome case for the theory, however, was that of air. We feel the warm air blown to us from the south, for instance, and would like to say that we perceive the air. But in order to say this, we should have to say that the air is colored, because of the rule mentioned above. Some Naiyāyikas evidently did take this alternative, holding that air has inhering in it color-tropes which are imperceptible, i.e., unmanifested.[20]

The first argument has already been disposed of, since on Raghunātha's view all substances are composed of perceptible substances; atoms have been eliminated. We shall find him spending a large portion of the text in providing an alternative to the view

[19]This is my interpetation of this point. Prof. Ingalls, however, thinks that the old Naiyāyikas believed that substances were perceptible only visually, and not by the other sense-organs. Cf. *Nyāyasūtras* III.1.69, and *Vaiśeṣikasūtras* IV.1.7, although neither work provides decisive evidence for either interpretation.

[20]J. Sinha, *Indian Psychology: Perception* (London, 1934), pp. 70-74.

that leads to the second argument – the view that all perceptible substances must have color-tropes. At this point, he merely registers a protest against the doctrine of unmanifested tropes.

Text 23.1: *Rupādīnām ca nendriyagrahaṇāyogyatvam.*

Translation: Of colors there is no unamenability to being perceived by the senses (i.e., no color is incapable of being grasped by the senses).

Commentary: He gives three arguments. First:

Text 23.1-2: *Vāyvādau rūpādikaṃ nāstīti sārvalaukikapratyayāt.*

Translation: For the ordinary opinion (is) that there is no color (scent, taste or touch)-trope in air (water, heat or light).[21]

Commentary: Again notice the appeal to our ordinary ways of speaking. For us, too, it would sound very odd to say "the wind is red" or "how soft the moonlight feels" unless we were writing or speaking poetry.

The second argument:

Text 23.3-25.1: *Anyathātīndriyapratiyogikatvena piśācātyantābhāvasyeva tatsāmānyābhāvasyāpratyakṣatāpattiḥ.*

Translation: If your view were correct, (it would lead to the) undesirable conclusion (that the) generic absence of an (unmanifested color-trope would be) imperceptible just like the absolute absence of a hobgoblin, insofar as their counterpositives (were) supersensory.

Commentary: This leads us abruptly into one of the most difficult portions of the system, the theory of absences. The most complete treatment of this theory is to be found in *Materials*,[22] and we shall have occasion to deal with absences in more detail later. Here I shall limit my remarks to an explanation of the technical terms used in the sentence in the text. A "generic absence" is the absence of some sort of individual "in general." For example, the absence of the color-trope is a generic absence, whereas the absence of the color-trope which resided in the pupil of Cleopatra's left eye is a specific absence. The "counterpositive" of an absence is that individual which isn't present. When this individual is quali-

[21] *Rūpadikaṃ* is an alternative reading for *rūpaṃ*.

[22] Pp. 54 ff.

fied by a universal, the absence is a generic absence; but if the individual is qualified by an imposed property, the absence is a specific absence. "Absolute absence" is the kind of absence which occurs when a certain individual has not been, is not and will not ever be present in a certain place. It is a type of "relational absence," since it involves a relation between the individual and the place where it does not occur.

What Raghunātha's argument says in effect is this: the opponent's view is untenable, because according to it there is no more possibility of ever meeting an unmanifested color-trope than there is of meeting a hobgoblin. I shall try to explain how what Raghunātha actually says seems to come to just this. According to the Nyāya-Vaiśeṣika, one can see the absence of something just if one can see that something, if that something is the sort of thing which is perceptible. By the opponent's hypothesis, unmanifested color-tropes are imperceptible, and so therefore are their absences - the absences of which they are the counterpositives, to use the technical expression.

I am now staring at the middle of my desk and imagining a certain unmanifested pink trope, which I have never seen and which I don't see now on my desk. I see neither it nor its absence in the middle of my desk. However, according to the opponent, it is perfectly possible that sometime in the future I shall meet that trope; it will, of course, then be manifested, but that doesn't mean it won't be the same trope.

Now, however, I am thinking of a certain hobgoblin, whom I've never seen and who is not where I'm looking, on my desk. Nor is his absence there either. Now on the opponent's account there is no more reason for me to expect ever to meet the pink trope than for me to meet the hobgoblin. But Raghunātha protests at this, for whereas tropes are accepted by all to be present in some places and absent in others, hobgoblins are not. The distinction between "x is a trope and x is not here" and "x is a hobgoblin and x is not here" is the distinction between a significant and a nonsensical statement. This distinction is not kept in the opponent's theory.

Furthermore, if unmanifested tropes are admitted on a par with hobgoblins, then the tropes could be said to be anywhere and everywhere, just as hobgoblins are said to be. This is a well-known objection against explanations by appeal to the existence of supernatural or magical beings; if they can be adduced once without evidence, there is nothing to stop their being adduced over and over again whenever needed. Thus one might argue that there are unmanifested tropes everywhere - and this would be an "undesirable conclusion."

Text 26.1

The third argument against unmanifested tropes:

Text 25.1-3: *Atīndriyānantasparśakoṭikalpanām apekṣya lāghavāt mūrtatvenaiva dravyasamavāyikāraṇatvam.*

Translation: (An individual is the) inherence-cause of a substance if and only if (it is) material, for (this view is) simpler than (the alternative suggestion that the thing has) an endless series of supersensory touch-tropes.

Commentary: I have been unable to find any reference in the literature to any such alternative suggestion. Evidently someone had asked the question, what is the distinguishing characteristic of those substances in which other substances may reside by inherence?, and had come up with the answer, seemingly rather *ad hoc,* that those substances had touch-tropes which were imperceptible. Raghunātha offers a more sensible alternative: a substance may be the inherence-cause of another substance just if that substance is material, i.e., if it has a shape.

What is it to be material?

Text 25.4-26.1: *Mūrtatvaṃ tu spandasamavāyikāraṇatāvacchedako jātiviśeṣaḥ.*

Translation: Being material (is) the universal which limits the inherence-causality (resident in the inherence-causes) of motion.

Commentary: That is to say, to be material is to be the kind of substance which moves. The material substances, on the old theory, were those belonging to the sub-categories of earth, water, air, fire and the internal organ. All these substances are capable of motion, as opposed to the others left in Raghunātha's system, namely, soul.

Text 26.1: *Bhūtatvam api tad eva.*

Translation: Being elemental, too, (is) nothing but that (namely, a certain universal which limits the inherence-causality resident in the inherence-causes of motion).

Commentary: The elemental substances were those belonging to the sub-categories of earth, air, fire, water and ether. Raghunātha has deleted ether from the list (3.3-4.1) and added the internal organ (10.3), so that now any substance which is material is elemental and vice-versa. Raghunātha thus points out that there is just one universal which is referred to by two names.

However, an objection might be raised here, for the word "elemental" has a definite meaning in the old system, and given that meaning, the internal organ is not elemental, even if it be material.

Text 26. 1-27. 1: *Samavetendriyagrāhyaguṇavadvṛttidravyatvavyāpya-jātimattvaṃ tad ity api kecit.*

Translation: Some say that being elemental is the possession of a universal (which is) pervaded by substancehood, (which substancehood) resides in (that which) possesses a trope (which is) apprehensible by a sense-organ (which) inheres (in its parts).

Commentary: This was the old definition of "being elemental," and under it the internal organ, which has no tropes apprehensible by sense-organs of the required sort, was not elemental. But Raghunātha rejects this definition, since on his view there are no sense-organs of that sort at all. A sense-organ, to the traditional theorists, was a substance which was made up, like all perceptible substances, of imperceptible atoms. Raghunātha has rejected such atoms; his sense-organs are elements, perceptible though not necessarily perceived. The internal organ is no worse off in this respect than the other sense-organs, so the difficulty over it disappears. In retrospect, we can now see why the internal organ was called "elemental" in 10.3 and how full justification for its being called so had to wait until after the refutation of the atomic theory in its traditional mode.

Text 27. 1-2: *Antyāvayavinirāsas tv āvayoḥ samānaḥ.*

Translation: But we (the old theorist and I) both agree concerning the elimination of the final compound (from the class of things which in fact are the inherence-causes of substances).

Commentary: A "final compound" is any individual which is not a part of any other individual. But someone might want to know why a given individual *should not* be a part of another individual. After all, a pot, which is a final compound, can move, and that is apparently now the criterion for an individual's being a part of a substance. For in 25.1-3 it was said that the criterion was merely "being material," and in 25.4-26.1 it was said that being material was the universal which limits just those things that move.

The commentators give Raghunātha's answer, which is evidently that the pot is never a part of another substance, not because it couldn't be, but because other causal factors are never present.

Rāmabhadra gives an example. One of the other causal factors in any case of production of a whole from its parts is contact between the parts. But there is nothing for a pot to come into contact with which would, together with the pot, produce a new individual, and that is why, in fact, the pot does not produce any larger compound.

This, of course, brings us close to one of the most interesting and perplexing questions about the Nyāya scheme: when does a combination of individuals produce an object? I have a number of dabs of cement; by proper combination, I can produce a brick. The dabs of cement are individuals, and they come to be inherence-causes of another individual, the brick. But now if I take a number of bricks and build a wall, have I built another individual or an object? Is the distinction purely arbitrary? One suspects that a wall isn't an individual, if it isn't (I don't know of any Nyāya literature on walls), mainly because the individual bricks can be distinguished on sight in a brick wall. If they could be "melted in" to the wall, perhaps the Naiyāyika would consider the wall an individual. One must remember, of course, that throughout this paragraph I have been talking metaphorically. What we Westerners ordinarily call a "wall" or a "brick" is an object, since it consists of an agglomeration of various individuals from different categories. I have been using the words "wall" and "brick," however, to refer[23] to the substances, the individuals to which the corresponding Nyāya terms refer. What is difficult in all this is to know how arbitrary the distinction between individual and object is to the Naiyāyika, however arbitrary it may seem to us.

Raghunātha next eliminates several kinds of tropes from the old scheme. First he attacks the postulation of a trope called "separateness" *(pṛthaktva)*. The reasoning which favored having such an entity in the system was evidently as follows. We often say such things as "the island is separate(d) from the mainland." Now for any judgment we make there must be necessary conditions, and in the absence of any suitable kind of entity already admitted into the system, an additional kind of trope was needed as the condition of judgments involving the word "separate."

Text 28.1-2: *Pṛthaktvam api na guṇāntaram. Anyonyābhāvād eva pṛthaktvavyavahāropapatteḥ.*

Translation: Separateness (is) not a distinct trope, for the statement (that *x* is) separate (from *y*) can be explained merely through (its) mutual absence (with *y*).

[23]In the technical sense of "refers." See Introduction, p. 5.

Commentary: The mutual absence of x with y occurs whenever x is not identical with y. The difficulty is to know what the Naiyāyika means by "identity" *(tādātmya, svarūpa)*.[24]

The old theorist may reply that "x is separate from y" and "x is not y" are distinct judgments and thus must have distinct causes.[25] And he might back up his claim by pointing out that unless these were two different judgments, the Sanskrit for "x is not y" would have an ablative case-ending appended to the word for "y," since the Sanskrit for "x is separate from y" does translate a word *(pṛthak)* which takes the ablative case.[26] The entity represented by the word in the ablative is called the *avadhi* or *dhruvam,* the terminus from which ablation proceeds.

The *avadhi* is that x which is the support of a disjunction produced by the motion of y, where x is not the support of the motion of y which produces the disjunction.[27] For example, when a leaf falls from a tree, the tree is the *avadhi*. Now the old theorist maintains that whenever we use the word "separate" *(pṛthak)* we recognize an *avadhi,* and the presence of this kind of relationship, signified by the presence of the ablative ending in the judgment, is the specific necessary condition of the judgment "x is separate from y" and is not the cause of the judgment "x is not y."

Raghunātha rejects this.

Text 28.2-29.3: *Pṛthaktvapratītis tu na sāvadhitvāvalambanā mānābhāvāt. Ghaṭāt paṭaḥ pṛthak itaro 'nyo bhinno 'rthāntaram ity ādau ca tattacchabdaviśeṣaprayoge pañcamyanuśāsanakī.*

Translation: But the experience of separateness is not characterized by the presence of an *avadhi,* because (there is) no proof (that it is). The rule concerning the fifth (ablative) case (is) ordained with respect to certain words, such as (e.g., in the sentences) "ghaṭāt paṭaḥ pṛthak," "(ghaṭāt paṭa) itaras," "(ghaṭāt paṭo) 'nyaś," "(ghaṭāt paṭo) bhinnas," "(ghaṭāt paṭo) 'rthāntaram."

Commentary: It is just an accident of language that the ablative is taken by certain words and not by others. The five sentences

[24]The difficulty is not alleviated by *SM* on *BhP* 12 (quoted in *Materials,* p. 68, n. 134), which merely defines *tādātmya* in terms of mutual absence.

[25]This line is taken in *BhP* 114.

[26]*SM* on *BhP* 114.

[27]"Vibhāgajanakatatkriyānāśrayatve sati tatkriyājanyavibhāgāśrayatvam." This definition was given to me by Dr. Sen; I do not know its origin. Cf. also Pāṇini's *Aṣṭādhyāyī,* I. 4. 24.

Raghunātha offers all mean approximately "the cloth is different from (separate from, other than) the pot," but there is no question of an *avadhi* in any except the first, since there is no reference to movement away from anything.

Two other sorts of tropes, which may be treated together because of their dependence on each other, are proximity and remoteness, or nearness and farness. According to the old school the special causes of judgments such as "*x* is farther away from *y* than *z*" or "*x* is older than *y*" are tropes of this kind. They must be distinct from spatial or temporal position, for space and time function as general causes of all judgments, and what is needed is the necessary condition of a specific judgment.

But Raghunātha dissents.

Text 29.4: *Paratvāparatve api na guṇāntare.*

Translation: Proximity and remoteness, too, (are) not (additional) kinds of tropes (different from contact, etc.).[28]

Commentary: Raghudeva takes Raghunātha to be saying that the causes of the judgments of the sort in question are particular kinds of contact, one of the other kinds of tropes in the traditional list.

Text 29.4-30.2: *Viprakṛṣṭatvasannikṛṣṭatvābhyāṃ jyeṣṭhatvakaniṣṭhatvābhyām ca tathāvidhavyavahāropapatteḥ. Atrādye tṛtīyam apekṣate. Antye tu parasparāśrayam iti vivekaḥ.*

Translation: For (one may) explain judgments of this sort (i.e., judgments involving the notions of proximity and remoteness) by reference (on the one hand) to spatial remoteness and nearness, and (on the other hand) to temporal priority and posteriority. Of these, the former (i.e., spatial remoteness and nearness) involve a third (term), but the latter (i.e., temporal priority and posteriority) are the support of a reciprocal (relation); (this is the) distinction (between the two types of proximity and remoteness).

Commentary: Raghudeva's example is the judgment "Mathurā is far-from-Kāśī with respect to Prayāga." Mathurā is the modern Muttra, Kāśī is Banaras, and Prayāga is Allahabad, these being three cities on the Ganges plain. This judgment says, according to Raghudeva's interpretation, that there are more contacts-between-elements between Mathurā and Kāśī than between Mathurā and Prayāga. Farness

[28] This translation follows Raghudeva's gloss on "guṇāntare," namely, "saṃyogādibhinne." *PTN*, p. 29, line 14.

is then a conglomeration of contacts and belongs to the sub-category of contact, just as a conglomeration of red tropes belongs to the sub-category of color (as we shall see).

Spatial distance differs from temporal distance, though, in that the former is relative to some third entity - here Prayāga - whereas the latter is not. Instead, there is a directly reciprocal relation between priority and posteriority in time: if x is before y, then y is after x, whereas it is not the case that if x is far from y, then y is near to x.

Jumping now to the sixth category, Raghunātha disposes of the unique feature of the Vaiśeṣika system in a short paragraph.

Text 30.3-32.1: *Viśeṣo 'pi ca na padārthāntaraṃ mānābhāvāt. Vināpi vyāvartakaṃ dharmam pareṣām viśeṣānām iva nityānām dravyānām api svata eva vyāvartakatvāt. Yogino 'tiriktaṃ viśeṣam īkṣante. Evaṃ tarhi ta eva saśapathaṃ pṛcchantāṃ kim ete 'tiriktaṃ viśeṣam īkṣante na veti.*

Translation: And further, individuators (are) not things words refer to, because (there is) no proof (that they are). For eternal substances (are) differentiated merely by their own (natures), without a (distinct) separating principle, just as, according to the others (i.e., the old Vaiśeṣika school), the individuators (themselves and the eternal substances are). Yogis (are said to) see pure individuators. Then let them be asked on their oath whether they (really) see pure individuators or not![29]

Commentary: Once again the old school had searched for the peculiar condition of a certain kind of judgment. In this case, however, the judgments were those that yogis make about a particular atom or soul ("eternal substances"), to the effect that one atom or soul is distinct from another. Only yogis were supposed to be able to see atoms and souls, but it is typical of the temper of the early Nyāya-Vaiśeṣika to attempt to account for their experiences as well as those of ordinary people. As I suggested in outlining the criteria which Raghunātha adopts, the new school was not as certain about claims of experiences of an extraordinary sort. Raghunātha here exhibits an unusual skepticism about yogic powers; others in the new school were not so sure of themselves. The commentators on this text are respectfully silent.

At this point Raghunātha begins a lengthy section dealing with problems about the colors of middle-sized individuals, as well as

[29]The translation of the last two sentences is taken from *Materials*, p. 38.

their touch-, taste-, and smell tropes. His main point of attack is on the theory of the old school that there is a kind of color-trope called "variegated-color" *(citrarūpa)*, which is produced from the combination of elements which possess colors of different sorts. In order to get rid of this kind of color-trope, he finds it necessary first to dispute certain categorial rules.

Text 32.2-4: *Rūpādikaṃ cāvyāpyavṛtty api saviṣayāvṛtter vyāpyavṛttivṛttijāter avyāpyavṛttivṛttitāvirodhas tu niṣprāmāṇikaḥ.*

Translation: And (some) color-tropes, etc., (are) non-locus-pervading as well (as knowledge, etc.). (There is) no reason (to think that it is) a contradiction for (one) universal to (1) not reside in a content-possessing (trope and yet both) (2) reside in a locus-pervading (trope and) (3) reside in a non-locus-pervading (trope).

Commentary: Two distinctions among kinds of tropes are used here. A "locus-pervading" trope is one which is connected with all of its substratum, the substance in which it inheres. A "non-locus-pervading" trope is one which is connected with part of its substratum only. A "content-possessing" trope is a trope such as knowledge or memory, a trope which takes other individuals as its content - "content" in the sense of the content of a perception, that which we perceive. Knowledge, pleasure, pain, desire, aversion, and a certain kind of *bhāvanā* (the twenty-second trope) are content-possessors; the rest are not.

The old Vaiśeṣika accepted two categorial rules covering the residence of universals in tropes. (A) If a given universal resides in a content-possessing, locus-pervading trope, then it may also reside in a content-possessing, non-locus-pervading trope. A case of this is knowledgeness, which resides both in god's knowledge, which is locus-pervading, and also in the knowledges of the individual souls, which are non-locus-pervading. (B) If a universal resides in a non-content-possessing, locus-pervading trope then it may not reside in a non-content-possessing, non-locus-pervading trope.

Following out the logic of rule B, the old school was forced to make a decision about each kind of non-content-possessing trope, as to whether all instances of that kind were locus-pervading or not. The result of this was that contact, disjunction and sound were classified as non-locus-pervading, and all the rest were taken to be locus-pervading. Thus there came into existence the doctrine that color-tropes are always locus-pervading.

The ultimate justification for rule B must have come from experience, and to be sure, when a pot stands on the ground, the contact which inheres in the pot does not characterize all the pot, but merely the bottom of it which touches the ground. And to be sure, also, color-tropes are often locus-pervading, as in the case of the blue ink in a bottle. But Raghunātha emphasizes that there are many cases when color-tropes are not locus-pervading. For example,

Text 32.4-6: *Pakve ca ghaṭe raktapratītir nāpramā bādhakābhāvāt. Upalabhyate ca bhagne tasminn antaḥśyāmatvam.*

Translation: The perception of red (color) in a baked pot is not a mistaken one, since (there is) no contradictory perception; (but) when the pot is broken open, (you will see) blackness inside it.

Commentary: Thus, he argues, one may not hold that the pot is not red, since evidently it is, and yet one may not hold that it is locus-pervading red, since evidently it is black inside.

Text 32.6-8: *Smṛtir api:*
Lohito yas tu varṇena mukhe pucche tu pāṇḍuraḥ
Śvetaḥ khuraviṣāṇābhyāṃ sa nīlo vṛṣa ucyate. Iti.

Translation: And tradition (tells us the following):
"This is called a blue bull,
(though it is) red in the mouth,
gray in the tail,
and white in the hoofs and horns."[30]

Commentary: The point is that a bull which is mostly one color is taken to be that color, and we say that the color is non-locus-pervading in such a case. This is a case of argument from authority (*śabdapramāṇa*), says Raghudeva.[31]

The old school, however, explained cases such as this one by recourse to a kind of color-trope called "variegated-color." Raghunātha rejects this.

Text 33.1-3: *Citram api nātiriktaṃ rūpaṃ samānādhikaraṇavijātīyarūpasamudāyād eva tathāvidhavyavahāropapatteḥ nīlāder nīlādyatiriktarūpājanakatvāc ca.*

Translation: Variegated(-color is) not a distinct (kind of) color,

[30]The same verse also occurs in *SM* on *BhP* 100.

[31]*PTN*, p. 32, line 22.

for a judgment of this sort (concerning the bull or the broken-open pot) may be explained merely through the agglomeration of heterogeneous colors (which have) the same locus and through (the rule that) blue produces no other color except blue.

Commentary: The latter part of this argument is an appeal to still another rule accepted by the school, namely, that the combination of two or more color-tropes of the same shade can only produce a third color-trope of the same shade and cannot produce a trope of a different shade. Thus if one has two pot-halves, one of which is black and the other red, and one puts them together to make a pot, the pot cannot be variegated-colored, since that would mean that a color-trope of one shade produced another color-trope of a different shade. Therefore the pot must be both black and red, and the tropes are non-locus-pervading.

The subject will come up again later (38.2-5), where a final objection to Raghunātha's view will be raised. At this point Raghunātha makes the analogous case with respect to tactual, taste- and smell-tropes.

Text 35.1-5: *Sparśo 'pi cāvyāpyavṛttiḥ. Anyathā sukumārakaṭhinābhyām avayavābhyām ārabdhe 'vayavini sukumārāvacchedena tvaksaṃyoge kāṭhinyasyāpy upalambhaprasaṅgaḥ. Na ca sukumāratvakaṭhinatve saṃyogaviśeṣau cākṣuṣatvaprasaṅgāt.*

Translation: (Some) tactual (tropes), likewise, are non-locus-pervading. If your view were correct, (then in the case of) a compound (which was) produced from hard and soft (tropes), perception of hardness would arise at the very point where the skin was in contact with the soft. And softness and hardness (are) not particular kinds of contact, because then they would be visually perceptible.

Commentary: The last sentence deals with a view held by some members of the old school, that softness and hardness were kinds of contact. But according to Viśvanātha, contact among other tropes is grasped by two sense-organs which he tells us are the eye and the sense of touch.[32] Softness and hardness are not visually perceptible and thus cannot be kinds of contact.

Text 36.1-37.1: *Raso 'pi cāvyāpyavṛttiḥ. Anyathā tiktamadhurābhyām ārabdhe 'vayavini tiktāvayavāvacchedena rasanāyoge mādhuryopalambhaprasāṅgaḥ. Nīrasa eva vā tatrāvayavī. Etena gandho vyākhyātaḥ.*

[32] *SM* on *BhP* 93.

Translation: And (some) taste (tropes), likewise, (are) non-locus-pervading. If it were not so, in a compound (which is) produced from bitter and sweet (tropes) perception of sweet taste would arise at the very point where the skin was in contact with the bitter. Or (else) the compound would have no taste at all. (Some) smells (are) to be explained in like manner.

Commentary: Leaving tropes, he moves on to make the same point about motions.

Text 37.2-3: *Karmāpi cāvyāpyavṛtti. Calantīṣu sarvāsu śākhāsu niścalamūle vṛkṣe calatīti pratyayāt.*

Translation: And likewise (some) motions (are) non-locus-pervading. For we find that there is motion in the tree when all the branches (are) moving but the roots (are) not.

Commentary: Here issue is taken with a rule stated by Dinakara in his commentary on Viśvanātha, the rule being that motions are always locus-pervading.[33] The old school apparently believed that when the tree moves, all its parts must be moving. Raghunātha contends that this is belied by our experience. The opponent, however, explains the same experience differently.

Text 37.4-5: *Śākhā eva paraṃ calanti na punar vṛkṣa ity api pratyayo 'stīti cet ...*

Translation: And if (you, my opponent, argue that) we can equally well find that the branches alone move but the tree (does) not ...

Commentary: In other words, the opponent argues that if the tree is moving then the branches must be moving, but that it does not follow that if the branches are moving the tree must be moving. Raghunātha, however, replies that this involves a difficulty.

Text 37.5-38.1: *... tasya sarvāvayavāvacchedena calanābhāvo viṣayo na punaḥ sarvathaiva calanābhāva uktapratyayavirodhāt.*

Translation: ... (if you argue thus, I would point out that there is) no motion in some of the parts of (the tree), but (that your view that there is) an absence of motion everywhere is contradicted by our perception.

[33]"Kriyayā vyāpyavṛttitvaniyāmaḥ." *Dinakarī* on *BhP* 120, Kāshi Sanskrit Series 6 (Banaras, 1951), p. 472.

Commentary: The opponent reports his experience in an E-proposition (it is not the case that there is an *x* such that *x* is part of the tree and *x* moves), whereas Raghunātha reports it as an O-proposition (it is not the case that, for all *x*, if *x* is a part of the tree then *x* is moving). The proposition they both accept, namely, that there is an *x* (the branch) which is a part of the tree and is moving, contradicts the opponent's E-proposition but not Raghunātha's O-proposition.

Notice that this implies that there is both motion and its own absence in the tree at the same time. This is not a difficulty peculiar to Raghunātha; the Navya-naiyāyikas recognize it as a difficulty and attempt to meet it.[34] The present section may help to make it more apparent how the problem comes to be posed.

Text 38.1-2: *Ata eva sadā sakampo 'śvattha iti prasiddhir api.*

Translation: In such a manner (one can) also (explain) the well-known saying "the *aśvattha*-tree (is) always moving."

Commentary: Readers of the Upanishads and the *Bhagavadgītā* will remember the *aśvattha*-tree, whose "upside-downness" has symbolic value for Hindu tradition. This tree, known to botanists as *Ficus religiosa*, is characterized, among other things, by a peculiar shaking of the leaves, which doubtless gives rise to the "well-known saying" here spoken of.[35] Raghunātha's point is that the motion attributed to the tree is non-locus-pervading, being confined to the leaves of the tree.

Raghunātha now returns to the topic he left at 33.1-3, which concerned the colors of aggregates. A clever objection to the theory urged earlier is this: if parts which are of various colors cannot combine to form one variegated-colored whole but only a whole which has many colors, then by parallel reasoning it would seem that if the parts were all the same color they could not combine to form one whole of the same color but only a whole which has many tropes of the same shade. And this would be an overly complicated account.

Text 38.2-5: *Sarvaiś ca nīlair ārabdhe 'vayavini nīlān nīlaṃ svasvāvacchedenotpadyamānam avirodhād vyāpakam evotpadyate sajātiyavijātiyeṣu nānāpadārtheṣu jāyamānaṃ samūhālambanarūpam ivaikaṃ jñānam.*

[34] *Materials*, pp. 73-74.

[35] Cf. M. B. Emeneau, "The Strangling Figs in Sanskrit Literature," *Univ. of Calif. Publications in Classical Philology* 13 (1949), 345-370.

Translation: When a compound (trope) arises from tropes which are all of them blue, (granted that) a blue (trope) arises from a blue (trope) each with its own limit, (still) since there is no contradiction (i.e., the blue parts do not overlap, the blue which is produced) fills its locus. In the same way, one knowledge of the collective sort (may be) produced with respect to various kinds of individuals, whether (all) of the same type or of different types.

Commentary: Raghunātha's reply takes the form of an analogy. Consider the kind of knowledge called "collective" *(samūhālambana)*. This is a knowledge which has as its content a collection of individuals. Now such a knowledge is, with respect to its own limitor, namely, knowledgeness, just *one* knowledge, whether the individuals which make up its content are all of the same sort – all men, say – or of different sorts – e.g., a man, a girl, and the moon. Raghunātha claims that the case of a plurality of tropes producing a single, collective trope is quite analogous; with respect to its own limitor, namely, blueness, the blue trope which is produced is a single trope, although it has several tropes as parts. This is true whether the tropes which produce the single trope are of similar types or of different ones. If the tropes are of different types, the resulting trope is non-locus-pervading, as in the case of the blue bull; if they are of the same type, the resulting trope is locus-pervading: it "fills its locus."

The commentators say that this view leads to the fallacy of an individual's being its own residence (see page 6). For, according to the traditional theory, when parts come together to form a whole, the color-tropes of the parts are the non-inherence causes of the color-tropes of the whole. Raghunātha, however, has just finished saying that the colors of the parts and the color of the whole are the same. This leads to the fallacy. His solution to this is to say that some individuals have no non-inherence cause. To illustrate this, he points to the case of the type of trope called "unity" *(ekatva)*. Such tropes reside in single individuals.

The previous paragraph explains how the commentators, especially Rāmabhadra, apparently connect this section to the one which will follow. It must be noted, however, that the commentators' interpretation means that the part-whole relationship works differently for tropes than it does for substances. An important Nyāya-Vaiśeṣika doctrine about the part and the whole with respect to substances is mentioned in the Introduction: when two substances of the same sort combine to produce a third, the third is a distinct individual, not equivalent to the sum of its parts. Thus the pot is not the sum of the pot-halves. The commentators' interpretation outlined

above says that the color of the pot *is* the sum of the colors of the halves; colors, when they combine, do not produce in the fashion substances do, on the commentators' view. I see no particular difficulty in this, but it is well to note the breakdown at this point of the parallelism between substances and tropes. The Nyāya point of view is permeated by the doctrine that all relations are external. The commentators' interpretation runs counter to that tendency.

Actually, Raghunātha's text does not have to be interpreted the commentators' way; all he says is that the color which results from the combination of many blue-colors fills its locus. The color produced might well be different from the sum of the blue-colors of the parts, thus saving the parallelism between substances and tropes. In that case, there would be no fallacy of a trope's being its own cause, since the individuals are different.

It is further worth noticing that nowhere, not even in the next section, does Raghunātha himself refer to a fallacy of the sort that worries the commentators. To him the next section may well have been either disconnected from the present one, or connected in some way other than that assumed by the commentators. If one wishes to keep the parallelism between tropes and substances, what Raghunātha actually says gives one no reason not to.

At any rate, the next section deals with the non-inherence cause.

Text 38.6-39.2: *Ekatvaṃ ca na sāsamavāyikāraṇakam asamavāyikāraṇatvena kāraṇatvābhāvāt bhāvakāryamātrasyāsamavāyikāraṇajanyatve mānābhāvāt.*

Translation: Unity (has) no non-inherence cause, for the non-inherence cause (is) not (really) a cause (at all); for (there is) no proof (that every) positive effect (is) produced by a non-inherence cause.

Commentary: "Positive" effects are individuals coming into existence; they are to be distinguished from "negative" effects, individuals going out of existence, being destroyed, which, Raghunātha admits in the next section, do involve non-inherence causes. Here, however, he denies that every positive effect involves a non-inherence cause. The commentators say that if a non-inherence cause were allowed in cases of production, the fallacy of a thing causing itself would be committed. Unity always resides, as we have said, in some single substance, and the connector between them must be inherence. The non-inherence cause of an individual

is defined as that which is connected with the inherence cause of the effect, so that in this case the non-inherence cause must be something which is always present when the inherence-cause of the production of unity is present. The only individual which satisfies this requirement is unity itself, as it turns out.

Likewise, we are expected to infer that in the case of the blue trope produced by a collection of blue tropes, there is no non-inherence cause. But Raghunātha does not want to deny the existence of non-inherence causes altogether, nor even to deny that they perform a necessary function within the system.

Text 39.3-4: *Dravyanāśe ca sarvatrāsamavāyikāraṇanāśa eva kāraṇaṃ nityasamavetadravyanāśe kḷptatvāt.*

Translation: The destruction of the non-inherence cause (is), to be sure, always the cause of the destruction of a substance, for (you) hold (that it is) the cause of the destruction of a substance which inheres in eternal components.

Commentary: In his commentary on this passage, Raghudeva points out that the destruction of a substance cannot be taken to be caused by the destruction of the inherence cause, because each destruction of the world, at the end of each cycle, is caused by the breaking up of the double-atoms, which are non-inherence causes, and not by the breaking up of the atoms, which are eternal and never break up.[36] This is all very well for the old theorist who believes in atoms; as for Raghunātha, it would also apply just if his elements were eternal. In this text he doesn't tell us whether they are or not.

The next section begins an extended discussion concerning the necessary conditions for perceiving certain kinds of individuals through our sense-organs. The old view was that the necessary condition for a substance's being perceived was that the substance be connected to a color-trope.[37] Raghunātha, as we shall see in a moment (42.3), rejects this theory as overly complicated and unproved.

Raghunātha's method of building a definition of the necessary condition for the perception of substances by the senses is to find first a definition of the necessary conditions for perceiving a substance with each sense-organ which is capable of perceiving substances, and then to attempt to combine the several definitions into an all-encompassing one.

[36] *PTN*, pp. 39-40.

[37] This is stated, for example, in *BhP* 56 and elaborated upon in *SM* on that stanza.

Text 41.1: *Dravyaspārśanapratyakṣe sparśavattvam eva prayojakam.*

Translation: The necessary condition for the tactual perception of a substance (is) merely its possession of a tactual trope.

Commentary: The old view was that a substance, to be perceptible by any sense-organ, must have color. Raghunātha's "merely" repudiates this.

Text 42.1-3: *Ata eva śīto vāyur ityādipratyayo 'pi spārśanaḥ sādhu saṅgacchate. Truṭer aspārśanatve tu prakṛṣṭatamaṃ parimāṇam api tathā.*

Translation: Therefore the judgment "the wind is cool," etc. (is a judgment resulting from) tactual perception – that is all right. But if (you insist that) elements (are) not tactually perceptible, (I reply that the necessary condition of the tactual perception of substances is connection with) sufficient dimension (i.e., dimension larger than that of the element).

Commentary: The reader will remember that earlier (23.1-2) Raghunātha denied that there was an unmanifested color-trope in the wind. The old theorist had used such a trope to explain why the wind is perceptible; Raghunātha is pointing out that he can explain the perceptibility of wind without such unmanifested tropes. If an objector says that Raghunātha's elements, which are substances, are not tactually perceptible and yet may perfectly well be connected with a touch-trope, Raghunātha replies that he will then add the further specification that a substance, to be tactually perceived, must be bigger than an element. Notice he does not actually admit that elements are not tactually perceptible – he doesn't say. One naturally wonders why not; the answer may be found in other writings, particularly the *Kiraṇāvalīprakāśadīdhiti*.

Raghunātha now sums up his argument against the old view on this matter.[38]

[38]The text on pages 42-44 of the *Pandit* edition is mispunctuated. The following emendations, originally suggested by Dr. Sen and which I have since verified in the manuscript of the *PTN* at the Adyar Library, Madras (8F 77 de 12), should be made: the *cheda*'s in lines 3 and 7 of page 42 and in the single line on page 43 should follow "tathā" in each case. The *cheda*'s should be deleted in line 3 on page 42 following "gauravān mānābhāvāt," and in line 8, same page, following "gauravān mānābhāvāc ca." Line 6 on that page should end with a *cheda*. On page 44, the *cheda* in line 2 should follow "tathā" rather than precede it.

Text 42.3-6: *Gauravān mānābhāvāt tvagvyāpārānantaraṃ vāyur vātīti sārvalaukikapratyakṣasyānyathānupapattyā ca rūpaṃ tatra na niveśanīyam.*

Translation: Color should not be introduced here (as necessary condition) because of over-complication and lack of proof, and because the common perceptual judgment "the wind is blowing" (which) follows the (wind's) operation on the skin (would be) otherwise inexplicable (except by the wind's having a tactual trope).

Commentary: According to Rāmabhadra, the following objection arises: the wind cannot be perceptible at all, since if it were, others among its tropes, such as its number, for instance, would also be perceptible. And we can't perceive the wind's number. In the case of a heavy gale, how many winds are there?

Text 42.6: *Phūtkārādau ca sphuṭatarapratyakṣāḥ saṃkhyādayaḥ.*

Translation: And number, etc., (of the wind *are*) easily perceptible, in blowing, etc.

Commentary: You can tell the number of winds there are, says Raghunātha; just count the number of times you blow on your hand!
Analogously,

Text 42.7-43.1: *Cākṣuṣadravyapratyakṣe rūpaṃ tathā gauravān mānābhāvāc ca niḥsparśāyām api prabhāyāṃ calanādipratyayāc ca sparśo 'pi na tathā.*

Translation: Color (is the condition) of the perception of visible substances, likewise. A tactual trope (is) not (the condition of visual perception) because (that view is) unnecessarily complex and because (there is) no proof, and because (we visually) perceive motion, etc., in a beam of light, (which has) no actual trope.

Commentary: Having given the conditions for the tactual and visual perception of substances separately, Raghunātha now tries to formulate a rule which will single out the necessary conditions of all external perceptions of substances. He uses the phrase "samavetendriya" in this connection to rule out the knowledge of the sort that the soul has alone, without mediation by the senses. A "samavetendriya" is a sense-organ which inheres in its parts; as we have seen (Commentary on 26.1-27.1), Raghunātha's sense-organs are not of this sort. In the present passage, he appears to adopt the earlier point of view in order to work out a problem which it engendered. I shall translate the term "samavetendriya" as "external

sense-organ"; the *manas* or internal organ, having no parts on anyone's view, is not an external sense-organ.

Text 43.1-44.2: *Dravyasya samavetendriyajanyapratyakṣe tu anātmasamavetaśabdarasagandhajātītarayogyadharmasamavāyitvaṃ tathā.*

Translation: (The condition of) the perception of a substance through an external sense-organ (is that substance's) being the substratum of a property (which is) fit (for perception) and (is) other than a (1) sound-, (2) taste-, or (3) smell-trope, (which is) (4) other than a universal, and (which) (5) does not inhere in the soul.

Commentary: The general rule here announced is that a substance *x* is the content of the perception of a substance if and only if it is the subjunct of an inherence connector whose adjunct is some perceptible property *y*. But the range of the values of *y* must be restricted in order to rule out certain cases which appear to violate the general principle. These cases are brought up in the following objections, and are answered by the additions in the text which are numbered correspondingly.

1) Sound is a property whose inherence cause - ether on the old view, or god on Raghunātha's - is not perceptible by a non-external sense-organ, that is, the soul. The soul cannot apprehend ether (or god) by direct means because they (the soul and ether) are both all-pervasive and are always found together - so the theory runs. The soul only comes to know the existence of ether (or god) by inference. This being the case, one might think that the specification (in the principle Raghunātha has just enunciated) "through an external sense-organ" would rule out the perception of ether automatically, but this is not so. For that phrase limits the range of *x*, not of *y*. There is nothing in the principle before emendation to exclude sound from its place among the perceptible properties, and since sound must have a substratum, that substratum, whatever it is, must be perceptible. Since neither ether nor god is so perceptible, the perception of ether must be ruled out as an exception, and this is done by placing a restriction on the range of *y*.

2) If *y* is a taste-trope, it must have a substratum. Take the case of a certain bitter taste I have in my mouth now; it must have a substratum, an *x*. But if so, by the principle here enunciated, *x* must be perceptible through an external sense-organ. However, I have no perception of any such substance, and therefore the general rule contradicts ordinary experience in this respect. So a second restriction on the range of *y* must be made.

3) In like fashion, if y is a smell-trope, say a sweet smell which appears to have no source, the same argument applies, and a third restriction has to be made.

4) Some universals are perceived when their substrata are not perceived by an external sense-organ. For example, substanceness, a universal, resided, on the old theory, in ether, but ether is not perceived by an external sense-organ. Thus the fourth restriction.

5) Knowledge, a trope, is sometimes perceptible, and always has as its substratum the soul. This, however, is not perceptible by an external sense-organ, and so a fifth restriction must be made.

An objector might now say that the first restriction is unnecessary, since according to Raghunātha sound inheres only in god, who is a soul, and is thus ruled out by restriction 5. Raghunātha answers,

Text 44.2-45.1: *Sukhādisamavāyikāraṇatāvacchedakatvena siddham ātmatvaṃ jātir neśvara iti.*

Translation: The universal soulhood, insofar as (it is) the limitor of the inherence-causality of pleasure, etc., (is) not in god.

Commentary: That is to say, the phrase *anātmasamaveta* (not inhering in the soul) in text 43.1-44.2 was intended in the sense of *jīvātmasamaveta* (not inhering in the human soul). Pleasures and pains of the sort attributable to human souls are not enjoyed or suffered by god. However, at least god's possession of knowledge must be admitted, and since the case of god's tropes is not to be handled in restriction 5 of the text, god must therefore be perceptible – so the objector argues. Since god is not perceptible, the principle is still defective. To this Raghunātha answers,

Text 45.1-2: *Tadīyajñānādipiśācādisaṃyogavāraṇāya yogyeti.*

Translation: In order to avoid (the difficulties in the cases of) the knowledges, etc., of god and the contacts (between the parts) of demons, etc., the phrase "fit (for perception)" (is added to the general principle).

Commentary: In 43.1-44.2, it was specified that y must be a perceptible property, i.e., one which is fit to be perceived. God's tropes, and those belonging to demons and other fictitious substances, are not fit to be perceived and are thus excluded.

Raghunātha now investigates possible ways of simplifying the rule.

Text 45.2-3: *Viṣayidharmāsamānādhikaraṇety abhidhāne tu śabdo nopādeyaḥ.*

Translation: If (in addition to the phrase "fit for perception" we) insert "(a property) which does not have the same locus as a content-possessing property," then (the word) "sound" (restriction 1 in rule 43.1-44.2) (is) unnecessary.

Commentary: The insertion is suggested because in Raghunātha's own theory ether is equated with god (3.1-10.2). By this theory, if one insist that *y* not have the same locus as a content-possessing property, ether cannot be taken as *x*. Even without the word "sound" *x* cannot be ether, for ether is the locus of that (viz. sound) which has a common locus (viz. god) with a content-possessing property (viz. god's knowledge).

The rule will now read: "(The condition) of the perception of a substance through an external sense-organ (is that substance's) being the substratum of a property (which is) fit for perception and which does not have the same locus as a content-possessing property, and which is other than a taste- or smell-trope, other than a universal, and which does not inhere in the soul."

The reader will undoubtedly sympathize with the next objection, which is that this whole principle is far too complex. Why not just say that the condition for the external sense-organ's perceiving a substance is that substance's being big enough – having "sufficient dimension"?

Whether Raghunātha accepts this definition is not clear, because the text for the next section is apparently defective in a crucial place. The discussion concerns a bilious substance which resides in the eye and, when too much of it accumulates there, causes jaundice, or at least the characteristic symptoms. The interpretation given by the commentators, which is followed as far as possible in this translation, is that Raghunātha holds that possession of sufficient size *is* an acceptable account of the condition necessary for the external perception of a substance, and that he is concerned in the following passage to refute the person who claims that the bile in the eye is evidence against this definition.

Text 45.3-46.3: *Asmadādinayanasaṃsṛṣṭapittadravyasya parimāṇa-śūnyatāparimāṇavattvamate tu tādṛśapratyakṣe parimāṇavattvam eva tathā.*[39]

[39]This differs from the published text. In the published text "parimāṇaśūnyatva.." ends with an "-m-," and there is a *cheda* preceding this word. The text given here is revised in accordance with the commentators' interpretation.

Translation: If (one) thinks (that) the individual soul (has) no size (and) the bile in the eye (does have) size, (he may consider the necessary condition of external) perception (to be) possession of (sufficient) size.[40]

Commentary: Next Raghudeva deals with someone who claims that the bile in the eye can't be perceived at all because it has no dimension. Raghudeva says that this conclusion is welcomed by Raghunātha.[41] Another hypothetical objector is bothered, however, by the consideration that the bile evidently has a color, the yellow color that the person with jaundice sees. How can we hold that the bile is not perceptible and yet claim to see its yellow color?

Text 46.3-4: *Yad vā nayanasaṃsṛṣṭapittadravyaṃ nīrūpam eva. Anyathā puruṣāntareṇa tatpītimopalambhāpattiḥ.*

Translation: (One may say) the bile in the eye has no color, for if it did (have color), the yellow (trope) would be perceived by another person.

Commentary: In jaundice, for example, and in color-blindness of certain sorts, the afflicted person sees things as peculiarly colored, but his neighbor doesn't see the jaundiced one's eye as peculiarly colored. Nevertheless, an objector might argue that when someone with jaundice sees a white thing as yellow, there must be something in his eye whose yellow trope is superimposed on whatever he sees. (The usual example of what a jaundiced person might see is an oyster-shell, ordinarily white and looking yellow because of the disease.)

Text 46.5-47.1: *Smaryamāṇas tu pītimā doṣavaśāc chaṅkhādāv āropyata iti.*

Translation: (In cases of jaundice and color-blindness,) the yellow (trope) is remembered, and then because of (some) defect (in the perceptive process is) superimposed on the shell.

Commentary: If the reader finds all this unsatisfactory, he shares that feeling with this writer.

[40]"Asmadādi" is construed by both commentators as meaning the same as "ātmādi," and they take "parimāṇaśūnyatva" with "asmadādi" and "parimāṇavattva" with "nayanasaṃsṛṣṭapittadravya." Rāmabhadra (102.18-20) says this is not the opinion of the "ṭīkākṛt," meaning apparently Raghunātha.

[41]The opinion is "iṣṭapattyā." *PTN*, p. 46, line 8.

Text 47.1-2: *Dravyapratyakṣe ca śabdarasagandhajātītarayogyadharmasamavāyitvaṃ tathā.*

Translation: (The condition of) the perception of a substance (is that substance's) being the substratum of a property (which is) fit (for perception) and (is) other than a sound-, taste- or smell-trope and other than a universal.

Commentary: Apparently Raghunātha is generalizing the condition of perception of substance through the external organs (cf. 43.1-44.2) to fit *all* perceptions of substances.

Text 47.2-4: *Rasanagataṃ ca pittadravyaṃ na rūpavan na vā sparśavad rasanā ca na dravyagrāhiketi na tat pratyakṣam.*

Translation: The bilious substance (which is the substratum of a bilious) taste (trope) possesses neither color (tropes) nor touch (tropes), and the taste (sense-organ does) not (by itself) grasp substances; therefore (the bilious substance is) not perceptible (by an external sense-organ).

Commentary: The translation follows Rāmabhadra's commentary.[42]

Text 47.5-6: *Etena vāyūpanītasurabhicampakabhāgo 'pi vyākhyātaḥ.*

Translation: In the same way, the sweet-smelling particle of *campaka* flowers (which is) wafted (to the nostrils) in wind (is to be) explained (as imperceptible because without color, etc.).

Commentary: The sense-organs of smell and taste grasp only tropes, and not the substances in which those tropes reside, unless the substances also possess color or touch tropes. This is my interpretation (see page 35, note 19), although it might be argued that Raghunātha's view is that smell and taste do not grasp substances at all. If I understand the commentators correctly, Raghudeva adopts this latter view, while Rāmabhadra adopts the former.

The foregoing discussion will perhaps help to suggest the discrepancy between the Nyāya views about perception and our own. Most English-speaking philosophers will, I am sure, feel it of the utmost importance to distinguish the sense of "see," for instance, in which we see material objects from that sense of "see" in which we are aware of their qualities. On these grounds, for instance, Bertrand Russell distinguishes between "knowledge by acquaintance" and "knowledge by description."[43] How much this distinction is influ-

[42]*PTN*, p. 103, line 19.

[43]Bertrand Russell, *Problems of Philosophy* (London, 1912), pp. 46-47.

enced by a felt difference between abstract and concrete, how much it reflects our tendency to accept psychophysical dualism, how much it is a function of the distinction in language between subject and predicate, are questions of much interest to which no final answer has yet been found. The Nyāya discussion seems odd to us because we suppose that the Naiyāyika's assumption that he can talk in the same breath about seeing tropes (or qualities) and seeing substances (or material things) is based on a failure to make an obvious distinction. This criticism, however, rests equally on assumptions of our own: that the distinction in question is obvious to everyone regardless of circumstances such as language differences, that the distinction is a useful one, that the Naiyāyika's "substance" is comparable to our "material thing," and that his "trope" is comparable to our "sensible quality." These assumptions are questionable, and to this writer's mind, part of the value of studying foreign systems such as Nyāya-Vaiśeṣika is precisely to stimulate the questioning of such assumptions.

Having suggested the peculiarity - from our point of view - of the Naiyāyika's handling of perception, we shall now find that it becomes more unusual in the following sections. The Naiyāyika supposes that we can see not only both substances and their tropes, but also universals and absences. The next section deals with absences.

The principle which governs the perception of absences is this: if one can see individuals of a certain kind with a certain sense-organ, then one can see the absences of such individuals with that sense-organ. We have seen this principle in use once already, in connection with hobgoblins (23.3-25.1). Now it comes into play again, in connection with the possibility of seeing the absences of universals.

The trick in the sort of rule described in the preceding paragraph lies in the phrase "individuals of a certain kind." For the Naiyāyika, an individual is limited by another individual: it does not belong to a class or kind, but rather is connected with this or that individual in a particularly significant fashion. So that the rule must be restated more accurately thus: the absence (x) of an individual (y) can be perceived by a sense-organ (z) if and only if the individual (y-ness) which characterizes y can be perceived by z. This is almost the way the Naiyāyika phrases it; his version is slightly more complicated from our point of view through his use of the term "counterpositive" which we met earlier (page 36). The Naiyāyika says that the absence (x) of an individual (y) can be perceived by a sense-organ (z) if and only if the limitor (y-ness) of the counterpositiveness of x can be perceived by z. The "counter-

positiveness" is the imposed property which resides in the counterpositive; here *y* is the counterpositive, *y*-ness is the particular case of the counterpositiveness in question.

The question is raised, can the absence of a universal be perceived? Raghunātha takes as an example for argument the case of the absence of potness.

Text 48.1-2: *Ghaṭatvādeś cābhāvo na ghaṭatvatvādinā rūpeṇa pratyakṣaḥ tasyātīndriyatvāt.*

Translation: And the absence of potness, for instance, insofar as (its counterpositiveness is) limited by potnessness, (is) not perceptible, since that (potnessness) is supersensible.

Commentary: That this follows from the rule described above can be seen by substituting the terms of this example for the variables in the rule. Thus *x* will be the absence of potness, *y* will be potness, *z* can be either sight or touch (as explained in the preceding section); the limitor of the counterpositiveness of *x*, namely *y*-ness, is potnessness. Potnessness, however, is not the sort of thing we can perceive with our sense-organs, according to the theory, and therefore the absence of potness cannot be perceived.

The reason the Naiyāyikas hold that second-order universals like potnessness cannot be perceived is to stop an infinite regress. If second-order properties can be perceived, there is no reason why *n*-ordered ones should not be.

Text 48.2-3: *Evaṃ na jātitvādinā rūpeṇāpīti sarvathaivāpratyakṣaḥ.*

Translation: Thus (the absence of a universal is not perceptible) insofar as (its counterpositiveness is limited by) the nature of universalness; so that (the absence of a universal is) never perceptible anywhere.

Commentary: Raghunātha now passes on to a critique of two universals, existence and presence.[44] For present purposes, I have adopted Ingalls' method of translating "sattā" as "existence" and "bhava" as "presence." I do this for the following reasons. "Abhāva," literally "not-bhāva," means "absence," or that which is negatively there; thus its opposite, namely "bhāva," which means that which is positively there, ought to be rendered "presence." "Sat" means literally "that which is," but the old Nyāya limits this term to the first three categories, substances, tropes and

[44] *Materials*, p. 54.

motions; thus "being" is inappropriate. We should suppose that, if some word to describe all the individuals in the universe were to be adopted, "being" should be that word. Here we need a word of narrower scope, and "existence," despite its connotations for Western philosophers, appears to be the only one available.

Text 48.4-7: *Sattā ca na dravyaguṇakarmavṛttir ekā pratyakṣasiddhā jātih. Dharmādīnām atīndriyatvena tatra pratyakṣāyogāt. Jātyādāv api sadvyavahārāc ca.*

Translation: And existence (is) not a universal (which can be supposed to) reside in substances, tropes (and) motions, (to be) single (and) perceptible. (It is not perceptible) because merit, etc., (are) not perceptible (and so existence can) not (be) perceived in them. (It is not a universal) because the word "sat" ("that which exists") (is) even used with reference to universals, etc.

Commentary: Raghunātha denies that existence is a universal which resides in all individuals of the first three categories, denies that it is a single property and that it is perceptible. A property is perceptible only if all its loci are perceptible; since merit and demerit, as well as god and certain other individuals, are not perceptible, existence, which resides in them, cannot be either. A property cannot be a universal if it resides in universals; existence does reside in universals, as evidenced by the fact that we say such things as "there is potness in the world." The "etc." in the text following "universals" includes absences. A universal cannot reside in an absence; the properties resident in absences are always imposed properties, since there is strictly speaking only one absence, as we shall see in a moment. However, we may make such a statement as, "There are no pink elephants," which implies a knowledge of the individuals absence-of-pink-elephant, existence, and a self-linking connector and asserts that they are connected in a more or less straight-forward manner. Therefore, existence must be an imposed property. And since each imposed property resides in one and only one locus, there must be many existences, and not one, as the old school thought.

But what is the principle which determines when we use the word "sat," i.e., when do we discover these imposed properties?

Text 49.1: *Ghaṭādau sadvyavahāraś ca vartamānatvanibandhanah.*

Translation: (When the word) "sat" (is) used with respect to a pot, etc., (it is) because of (the pot's) occurring (somewhere and at some time).

Commentary: Likewise, we English-speakers often use the word "is" to suggest that something has a certain spatio-temporal location; for example, "Here is a pot." This kind of judgment the Naiyāyikas call an *ananugatavyavahāra,* a judgment which does not pervade everything in the categories to which it applies. The use of "sat" in such a judgment as "Here is a pot" is to be distinguished from its use in an *anugatavyavahāra,* a pervading judgment, e.g., "A pot is a substance."

Text 49.2: *Kiṃ tu bhāvatvaṃ tat.*

Translation: However, that, (existence, is nothing but) being present.

Commentary: If "bhāva" is to be translated "presence," how should we translate "bhāvatva"? "Presenceness" seems awkward, therefore I have chosen the phrase "being present." "Being present" does not mean, necessarily, "being present at a certain spatio-temporal position," or even "being present at some spatio-temporal position or other." Then what does "being present" mean; how can we recognize this imposed property when we find it?

Text 49.2-4: *Tac cābhāvānyatvam. Abhāvatvam eva vānugatapratyaya-siddho 'khaṇḍopadhiḥ bhāvatvaṃ vākhaṇḍopadhiḥ.*

Translation: And that, (being present, is nothing but) being other than absent. Now either being absent (is) an indivisible imposed property establishment by a pervading judgment, or else being present (is itself) an indivisible imposed property.

Commentary: Imposed properties are either divisible *(sakhaṇḍa-)* or indivisible *(akhaṇḍa-)*. A divisible, mixed, or compound imposed property Ingalls describes as "characters by which the product of two classes is recognized."[45] An indivisible imposed property is an unmixed one.

Raghunātha is merely saying that of the two imposed properties, being present and being absent, one must be divisible and the other indivisible. It depends on which way we most naturally reason: if we naturally think first that everything that is is, and then define everything that is not as being other than that which is, then being present is the basic property and being absent is a divisible imposed

[45]*Materials*, p. 41. But see note 45 on the same page and also the present writer's review of *Materials* in *Philosophy East and West* 4 (October, 1954), 271-273.

property, since its analysis shows that it is otherness limited by being present – i.e., it is analyzable into two imposed properties, one of which limits the other. However, if we think first that everything which is not is not, and then define everything that is as being other than that which is not, then being absent is the basic property and being present is the divisible imposed property.

But one may still be puzzled as to why the basic property – whichever one it is to be – is not a universal rather than an imposed property. One would tend to think that being present (or, if you will, being absent) is the most embracing universal of all – like our "Being." But the Naiyāyika considers it to be an indivisible imposed property. Why? Maheśa Chandra answers, "Because whereas universals are related to their instances by inherence connectors, indivisible imposed properties are related to their instances by self-linking connectors."[46] Self-linking connectors never hold between one individual and many individuals; inherence connectors sometimes do.

Now being present (or being absent) is apparently connected to many individuals, and therefore we should expect the connector to be inherence and the property to be a universal. However, the Naiyāyikas have a curious theory at this point. According to them, there is only *one* presence and *one* absence. The argument is easiest to understand for the case of absence. There is only one absence, according to the theory, but this single absence is limited in various ways by each of the counterpositives that we fail to find. The absence of Devadatta's pot is to be analyzed as involving the one absence limited by a counterpositiveness limited by potness, which potness is limited in turn by Devadattaness. The analogous argument is easy to make with regard to being present. Since the properties being present and being absent reside in one individual each, they are imposed properties and not universals, and they are related to their residences by self-linking connectors.

One final objection arises, reminiscent of logical paradoxes in contemporary philosophy. What about being present, does it have the property being present, i.e., is being present present? The answer, says Raghunātha, is yes.

Text 49.4-51.1: *Tac ca jñeyatvādivad ghaṭābhāvādivac ca svavṛtty api.*

Translation: And (being present is) self-occurrent, just as knowableness and absence-of-potness (are).

[46]Maheśa Chandra Nyāyaratna, *Brief Notes on the Modern Nyāya System of Philosophy and its Technical Terms* (second issue, Calcutta, 1891?), p. 9.

Commentary: These three individuals are examples of themselves. One of the things we can know is that we can know; knowableness is knowable. Likewise, argues Raghunātha, one of the things which are present is being-present. And one of the things which are not pots is not-being-a-pot.

One might suppose that this theory involved the fallacy of self-residence. As far as I can tell, however, that fallacy is only mentioned when something is held to inhere in itself, not, as in the present cases, when an individual is related to itself in some other fashion. In the case of absence-of-potness, the connector is clearly a self-linking one, the kind which links an absence to its counterpositive. In the other two cases, however, although the connectors are presumably self-linking, there are no specific names for the kinds of connectors in question.

The next topic for discussion stems from the question whether there is a universal tropeness resident in all tropes, and further, whether if there were such a universal it would be perceptible or not.

Text 51.2-3: *Evaṃ guṇatvam api na rūpādicaturviṃśatāv ekā pratyakṣasiddhā jātiḥ.*

Translation: Further now, tropeness (is) not a single universal, established by perception (and occurring in) the twenty-four (kinds of tropes) beginning with color.

Commentary: First, why couldn't it be established by perception?

Text 51.3-4: *Atīndriyeṣu pratyakṣāyogāt.*

Translation: Because (tropeness) could not be perceived in supersensible (tropes).

Commentary: Tropes such as god's knowledge, merit and demerit, etc., are not perceptible, and thus, following the rule mentioned in the notes on 48.4-7, no universal which resides in them can be perceptible.

Second, why doesn't it occur just in the tropes, i.e., those twenty-four kinds of individuals listed in the texts, beginning with color and ending with sound?

Text 51.4-52.1: *Turagāder utkṛṣṭagatimattve brāhmaṇādeś ca doṣādyabhāve 'pi guṇavyavahārāc ca.*

Translation: Because (the word) "guṇa" (is) used (to speak of) the excellent swiftness of movement of a horse and the absence of

fault in a brahmin, etc., as well (as the twenty-four tropes in the list).

Commentary: From the variety of ways "guṇa" can be used in ordinary discourse we can see that there is no clear notion of what it is that distinguishes tropes. "Guṇa" is ordinarily used to mean excellence of various sorts and also has different technical meanings in the other schools of Indian philosophy.

Third, why is it not a universal at all?

Text 52.1-4: *Ekasya kāryatāvacchedakasya virahe 'pi yena kenāpi rūpeṇa kāraṇatvādy anugamayya jātikalpane cātiprasaṅgo jātisaṅkaraprasaṅgaśceti dik.*

Translation: Also, since (there is) no single effectness-limitor (in cases where a trope is the cause), if (one were to) set up universals (by) collecting together causenesses of whatever form (one likes), (there would be) an overextension and a crossing of universals - (this is) the direction (of my thought and you can follow it out yourself).

Commentary: Here Raghunātha considers someone who seeks to save tropeness as a universal by suggesting that the differences between the various kinds of tropes are due to the different causenesses which are limited by the tropeness in each trope. The trouble with this is that it allows the postulation of all sorts of strange universals (this is the "overextension"). The commentators give examples. Consider all the other tropes except the color-tropes; these tropes might be supposed to produce certain effects (e.g., knowledge of smell, certain sorts of motions) which are dissimilar to the effects produced by color-tropes. Now the causeness in these tropes must be limited by some universal, for the effects surely have no common characteristic. For example, knowledge of smell is produced by smell, certain motions are produced by contact. Smell and contact are both tropes, but there is no universal common to knowledge and motion. Further, if we can set up a universal which is common to the twenty-three tropes excluding colors, we can equally well set one up for the twenty-three excluding taste, the twenty-three excluding smells, and so on. This would go too far; we would overpopulate the universe with universals of this sort.

The second objection to this widespread creation of universals is that some of them would overlap with others. A universal which resides in the twenty-three tropes excluding color would overlap in twenty-two instances with the universal which inheres in the twenty-three tropes excluding taste.

Actually, the requirement that there be no crossing of universals would seem to preclude universals altogether, for every universal inheres in many individuals, and these individuals invariably produce distinct effects. Raghunātha follows out the logic of the requirement in the *Kiraṇāvalīprakāśadīdhiti* where he says, "the universal is really nothing but a distributive imposed property, since there is no common universal where there is farness and nearness either spatially or temporally."[47] Since each individual of the kind in which universals inhere - i.e., the first three categories - is spatially and temporally farther from or nearer to some given individual than some other individual, there can be no common universal properties at all.[48]

Just as there is no tropeness inherent in all tropes, so Raghunātha now argues there is no universal called "experienceness" inherent in the four valid means of cognition, namely, perception, inference, comparison and verbal authority.[49]

Text 52.4-53.1: *Śābdādijñāne 'nubhavavyavahāraś ca smṛtyanyajñānatvanibandhanaḥ.*

Translation: (The term) "experience," (when) used (to speak of) a knowledge (of the sort gained by) verbal authority, etc., (is) used (to say) that (that) knowledge (is) other than (the kind gained by) memory.

[47]Princess of Wales Saraswati Bhavana Texts, No. 38 (1932), p. 15, lines 3-4: "...jātipadaṃ ca vibhājakopādhiparaṃ tena paratvāparatvayor daiśikakālikasādhāraṇajātivirahe 'pi...."

[48]According to *Nyāyakośa, or Dictionary of the Technical Terms of the Nyāya Philosophy* (2nd ed.; Bombay, 1893), "vibhājakopādhi" is by definition "sāmānyadharmasākṣādvyāpyo dharmaḥ" (*NK*, s.v. *vibhājakopādhi*). That is, a distributive imposed property is a property which is pervaded by a more general property, and therefore cannot be a universal on pain of *jātisaṃkara*. *NK* gives as examples *bhramatva* and *pramātva* - error and truth - which are *vibhājakopādhi*'s of knowledge, and *pṛthivītva, jalatva,* and *tejastva*, etc., which are *vibhājakopādhi*'s of substance. But also in *NK*, s.v. *pṛthivī, pṛthivītva* is said to be a universal. *NK* is not consistently "new" or "old" on this subject; Raghunātha does not seem to be consistent in his use of *jātisaṅkara*. Whereas in *Kiraṇāvalīprakāśadīdhiti* he rejects universals because they violate this criterion, in *PTN* 32.2-4 he has allowed *rūpatva* to inhere in both *vyāpyavṛttirūpam* and *avyāpyavṛttirūpam*. More evidence is needed to decide whether this represents a change in his view or merely an oversight.

[49]The word "anubhava," concerning which this section speaks, happens to share many of the same functions and ambiguities with our word "experience." For easy reading, I translate it as "experience," even within quotes, throughout this section.

Commentary: Thus if one should be disposed to argue that there is a universal experienceness in all kinds of valid knowledge, he would be misusing the word; for "I know this by experience" means just that I don't know it by memory. The properties appropriate to such knowledges are divisible imposed properties, since they are combinations of otherness and memoryness (parallel to being present or being absent, 49.2-4).

There *is* a universal experienceness, though, but it is not the same in function as the imposed property of the same name.

Text 55.2-3: *Jātis tv anubhavatvaṃ sākṣātkāritvam eva. Sākṣātkāriṇi jñāna eva tatpratyayāt.*

Translation: But the universal experienceness (is) the same as the universal direct-perceptibility. For (experienceness is) judged (to be present) only in the case of knowledge (gained by) direct perception.

Commentary: This universal applies only to knowledges of the perceptual sort, not to those gained by inference, comparison or verbal authority. As evidence,

Text 53.3-54.2: *Saty api cānumānikādisukhādiniścaye sukhādikam anubhavāmīti pratyayābhāvād iti.*

Translation: For (we do) not say "I am experiencing pleasure, etc." in cases (where we) ascertain pleasure, etc., by inference, etc.

Commentary: If I infer that Jones is happy, I don't say that I am experiencing Jones's happiness. Neither does the Naiyāyika.

We pass on now to the topic of "double absences." Here again the text is defective, and I shall be forced to lean on the commentators' version of it.

The question to be discussed is much like our question whether two "no"'s make a "yes," whether two negation signs cancel out. Raghunātha's position is that the absence of an absence is just a double absence, but the absence of an absence of an absence is the same as a single absence.[50]

Text 55.1-3: *Evaṃ ghaṭādyabhāvasyāpy abhāvo 'tirikta eva. Ghaṭādimati tadabhāvo nāstīty abādhitābhāvatvapratyayāt.*

Translation: Now the absence of the absence of a pot, etc., (is)

[50]Compare *Materials*, pp. 68-69.

a separate (individual from the presence of the pot and from the single absence of the pot), for (in the perceptual) judgment "(there) is no absence of a pot in the place (where there is) a pot," (there is) nothing to remove (our awareness of absenceness and indeed of double-absenceness).

Commentary: The point is that a presence can never be an absence; where we find absenceness we find an absence, never a presence. But if this is the case, we seem to be led to an infinite regress, for each new absence of an absence of ... will be a new individual.

Text 55.3-4: *Na caivam anavasthā ekasyaiva ghaṭābhāvasya svābhāvābhāvarūpatve virodhābhāvāt.*

Translation: And (there is) no infinite regress, for, since the absence of absence of absence of a pot (is equivalent to) the single absence of a pot, (there is) no contradiction.[51]

Commentary: Reconstructing the next sentence from the commentators' interpretation,

Text 55.5-56.2: *Anyonyābhāvasyānyonyābhāvo bhāvatvaṃ, atiriktānyonyābhāvāṅgīkāre 'navasthāprasaṅgāt.*[52]

Translation: The mutual absence of a mutual absence (is) a presence, for on the view (that) mutual absence (is) a separate (individual) there would be an infinite regress.

Commentary: A "mutual absence" is the absence of something in anything which is not identical with it; as Ingalls suggests, mutual absence with water corresponds to the fragment "-(... = water)."[53] Thus if I speak of the mutual absence of fire with water, I am saying that fire and water are not the same individual. Now what am I saying if I speak of the mutual absence of mutual absence of fire? What kind of an individual is this complex absence? Raghunātha says that it is a presence. The commentators object to this view: Rāmabhadra, paying his respects to his father for the criticism, notes that Raghunātha's view makes mutual absence of mutual absence the only one of the various odd sorts of absence dealt with in this

[51] *Materials*, p. 68 and n. 135.

[52] The text in the *Pandit* edition, which is untranslatable as it stands, reads: anyonyābhāvasyānyonyābhāvo bhāvatvaṃ saṃsargābhāvatvaṃ ca atiriktānyonyābhāvāṅgīkāre 'navasthāprasaṅgāt. The phrase saṃsargābhāvatvaṃ ca seems to have been miscopied into the text from Raghudeva's commentary.

[53] *Materials*, p. 35.

section which is not to be counted a separate individual. Besides, if Raghunātha's view were accepted, a simple mutual absence would not be a separate individual either, for a mutual absence of pot would be nothing more than those presences which are not pots. So that on Raghunātha's view there are no mutual absences at all. Concerning the infinite regress mentioned in the text, Rāmabhadra says that his revered father thought that since the infinite regress is a fact for which evidence exists, it cannot be considered to be a fault![54]

Relational absences are to be contrasted with mutual absences and are of three kinds, absolute, prior and posterior. We have already discussed the absolute absence: it is that absence which occurs when a certain individual has not been, is not and will not ever be present in a certain place (see page 37). A prior absence is the absence of an individual before it is created, and a posterior absence is the absence of an individual after it has been destroyed. Two further kinds of absence, Raghunātha contends, are the prior absence of a posterior absence - i.e., the absence of the post-destruction absence of a pot before the pot has been created - and the posterior absence of prior absence - i.e., the absence of the pre-creation absence of a pot after the pot has been destroyed.

Text 56.2-57.1: *Dhvaṃsaprāgabhāvayoś cātiriktāv eva prāgabhāva-dhvaṃsau ghaṭādeḥ sattvakāle tasya prāgabhāvadhvaṃsau na sta ity abādhitābhāvatvapratyayāt.*

Translation: And the prior absence of posterior absence, (as well as) the posterior absence of prior absence, (are each) separate (kinds of individuals), for (there is) nothing to remove (our awareness of absenceness in the absences involved in the perceptual judgments) "(there) is no posterior absence of prior absence of a pot, etc., (and there) is no prior absence of posterior absence of a pot, etc. at the time (when) the pot, etc. (is) in existence."

Commentary: Since there are two distinct judgments, there are two kinds of individuals.

Text 57.2: *Prāgabhāva eva na pāramārthika ity anye.*

Translation: But some (say that) prior absence (is) not (a) real (kind of absence).

Commentary: I am unable to say to whom this refers. Dr. Sen told

[54]*PTN*, p. 109, lines 2-5.

me that Raghunātha, in the *Dīdhiti* on Gaṅgeśa's *Tattvacintāmaṇi*, sometimes seems to want to hold this view, sometimes the opposite.

The question to be answered in the next section is, what is the necessary condition of recognition? Raghunātha will proceed to state and reject two older answers, those given by the old school of Nyāya and by the Vedāntists of Śaṃkara's *Advaita* school. The difference between the positions of these two schools is as follows. The Vedāntist holds that recognition is the result of a perception of a presented individual and the memory *(smṛti)* of an earlier presentation; thus recognition is for him a complex kind of *knowledge*, and memory is a kind of perception. The old Naiyāyika, on the other hand, believes that recognition is a complex kind of *perception* and finds no place for memory as a necessary condition, holding that recognition results from the combination of an ordinary *(laukika)* presentation of an object with an extraordinary *(alaukika)* presentation of some past presentation. This extraordinary perception has as its condition the trace *(saṃskāra)* left by the presentation at the earlier moment when it was first cognized. The point we should remember is that the Vedāntist believes that recognition is a further cognition over and above memory, whereas the Naiyāyika holds that recognition is directly caused by the trace without the intervention of memory.[55] Raghunātha reminds us of the old Nyāya view in the following words:

Text 57.3-4: *Pratyabhijñāyāś ca tattāgocarasaṃskāra eva hetur iti prāñcaḥ.*

Translation: The old school (says) that the trace of the "that" alone (is) the necessary condition of recognition.

Commentary: Raghunātha now defends the old Nyāya view from a Vedāntist argument as follows:

Text 57.4-6: *Na ca tasyāḥ saṃskārajanyajñānatve smṛtitvāpattiḥ tajjanyajñānatvasya tatra prayojakatvād iti vācyam.*

Translation: And (the Vedāntist should) not object: "since it (namely, recognition, is) a knowledge produced by a trace, (it must be simply a case of) memory, for (its) being a knowledge produced by that (namely, a trace) is corroboration of (its being a memory)."

Commentary: This is the Vedāntist argument. Now Raghunātha questions it. His next remarks involve two complicated properties which I shall number to facilitate reference to them. These properties

[55] See also Sinha, *op. cit.*, pp. 98-99.

are (1) being-a-case-of-memory and (2) being-a-knowledge-produced-by-a-trace.

Text 57.6-58.1: *Kim idaṃ prayojakatvaṃ nāma. Na vyāpakatvam avirodhāt na vyāpyatvaṃ pramāṇābhāvāt.*

Translation: For what (is) this corroboration? If (it is supposed to be the) pervasion (of property 1 by property 2, this is) not (corroboration), for (there is) no contradiction (between this position and the old Naiyāyika's); (and property 2 can) not (be) pervaded (by property 1) because (there is) no proof (that it is).

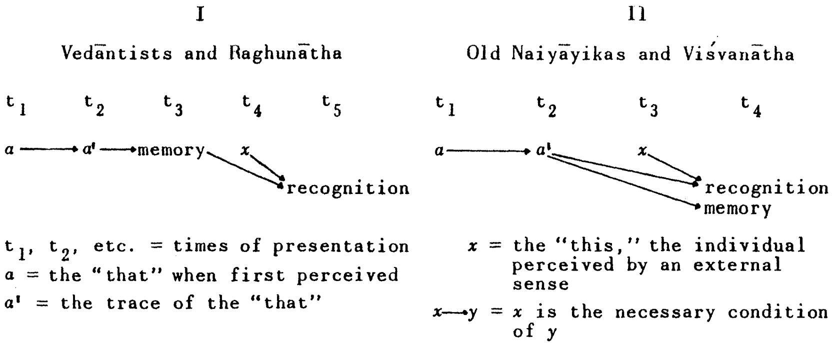
Commentary: The Vedāntist has stated a rule which might be paraphrased as follows: "the necessary condition of memory is a knowledge which is produced by a trace." Raghunātha argues that this may mean either of two things: (A) "for all knowledges *x*, if *x* is a case of memory, then *x* is produced by a trace," or (B) "for all knowledges *x*, if *x* is produced by a trace, then *x* is a case of memory." Now it does not follow from A alone that all knowledges produced by traces are cases of memory; therefore the Vedāntist's view, if it means to affirm A, does not contradict the Naiyāyika's, for the latter's argument is merely that the memory never intervenes between the trace and the recognition, not that memory is not produced by traces. Raghunātha catches the Vedāntist who holds A in the act of affirming the consequent: from "if *x* is a case of memory, then *x* is produced by a trace" and "*k* (some particular knowledge) is produced by a trace," it does not follow that *k* is a case of memory; it might well be a case of recognition, as the Naiyāyika thinks.

As for B, Raghunātha finds no evidence to suppose it to be true. Now, having defended the old Nyāya, Raghunātha turns to improving upon its position.

Text 58.1-3: *Paraṃ tv anudbhūte 'bhibhūte vā tattāsaṃskāre pratyabhijñāyā anutpādena tattāsmṛtir eva taddhetur iti mantavyam.*

Translation: However, the correct view (is) as follows: memory alone (is) the condition of that (namely, recognition), for when the trace of the "that" (the earlier presentation) (is) not excited or (is) obstructed, (there is) no arising of recognition.

Commentary: The alternative positions may be seen in the following diagram.



Raghunātha's view is that it is unnecessarily complicated to suppose, as the old Nyāya does, that *a'* is the condition of *both* memory and recognition (as in II), and therefore preferable to hold that there is a causal chain extending from *a* through *a'* to the memory and thence to the recognition (as in I). And, he argues, this is backed up by noticing that when *a'* is not excited, or when it is obstructed in some way – i.e., when for some reason we don't "bring to mind" the trace – we fail to recognize individuals we have seen before. The "bringing to mind" of the trace is the memory.

Note that Raghunātha's view is precisely that of the Vedāntist, although he rejects the Vedāntist argument for it. Viśvanātha espouses the old Naiyāyika view: "(the trace) is said to be the (necessary) condition in memory and also in recollection."[56] Ironically enough, Dinakara, also defending the old Nyāya view, charges the "maṇimatas" – Gaṅgeśa and Raghunātha – with holding a view that is overcomplicated. His ground for this is that Raghunātha wants to hold *both* that the memory stands between the trace and the recognition *and* that the trace is the condition of the recognition. It is not clear, however, why Raghunātha would wish to hold that the trace is the necessary condition of recognition. It seems rather unlikely that he would.[57]

Raghunātha has now completed his criticisms of the old theory and moves on to establish several new categories of individuals. The first of these, reminiscent of Buddhism, is the moment.

Text 58.4: *Kṣaṇaś ca kṣaṇiko 'tiriktaḥ kālopādhiḥ.*

[56]*BhP* 161, Kashi Skt. Series No. 6, p. 540: "Smaraṇe pratyabhijñāyām apy asau hetur ucyate."

[57]*Dinakarī* on *SM*, *ibid.*, p. 540, the paragraph beginning "maṇikṛnmataṃ pradarśayati...."

Translation: And the moment (is) momentary, (is) a separate (kind of individual, and serves as) the calibrator of time.

Commentary: This begins the further discussion of time promised above (commentary on 3.1-2). The reader will remember that the *upādhi*'s or limiting adjuncts of the typical temporal judgment in the example used there were a ray of sunlight, a certain mountain, and the contact of the two. This example was actually oversimplified slightly; strictly speaking, the old Nyāya-Vaiśeṣika supposed that the limiting adjuncts of temporal judgments were motions - members of the third category. A motion, say the motion of a ray of sunlight from one spot to the next, could be considered, so the theory went, as four "moments," a "moment" being the motion in question limited in a certain fashion. On the most strict interpretation, these "moments" served to calibrate time.

The view is explained in some detail by Dinakara in his commentary on *SM*. Viśvanātha lists four moments of a motion:[58]

1) "The motion as limited by the prior absence of disjunction produced by that motion."[59] Suppose an individual x is moving from place y to place z. Then this first moment is the moment when x is just about to leave y. At this moment, the disjunction from y (which will be produced by the motion itself) has not yet come into being, so that there is prior absence of disjunction from y.

2) "(The motion as limited by) the disjunction limited by conjunction with the earlier place."[60] The "earlier place" is place y, and the "later place" place z. At this second moment x has not yet left y, but the trope called disjunction has arisen in x with reference to y.

3) "(The motion as limited by) the prior absence of conjunction with the later place, which prior absence is limited by the destruction of conjunction with the earlier place."[61] x has now left y but has not yet arrived at z.

4) "The motion as limited by contact with the later place."[62] x arrives at z.

The old theory, then, was that any one of these four moments, which are motions, may be used to mark off the limits of a temporal span.

Raghunātha agrees that moments calibrate time, but denies

[58]*SM* 46, *ibid.*, 149, and *Dinakarī*, same page.

[59]"Svajanyavibhāgaprāgabhāvāvacchinnaṃ karma."

[60]"Pūrvasaṃyogāvacchinnavibhāgaḥ."

[61]"Pūrvasaṃyoganāśāvacchinna uttarasaṃyogaprāgabhāvaḥ."

[62]"Uttarasaṃyogāvacchinnaṃ karma."

they are motions. In the following arguments, he tries to show that there is no momentariness *(kṣanatva)* in the above-mentioned motions and that our notion of a moment must arise from something else. This something else, he claims, is a separate kind of individual, a new category.

In dealing with the theorist who claims that motion 1 is a moment, he first presents his opponent's argument in simpler terms than those given above and then moves on to consider the more complex formulation.

Text 58.4-59.3: *Vibhāgaprāgabhāvaviśiṣṭaṃ karmaiva tatheti cen na udīcyakarmajanyavibhāgaprāgabhāvaviśiṣṭasya karmaṇaḥ kṣaṇacatuṣṭayāvasthāyitvāt.*[63]

Translation: If (you say) that (the moment is) just a motion qualified by prior absence of disjunction, (I say) no! For the motion qualified by prior absence of disjunction produced by a later motion could then form part of the four moments.

Commentary: What is to guarantee that the later motion in question might not be one thousand years from now? And we cannot make an *ad hoc* rule to exclude such a motion, since such a rule would involve reference to time and so would be circular.

Text 59.3-5: *Svajanyavibhāgaprāgabhāvaviśiṣṭaṃ tat tatheti cet tarhi svatvānanugamād ananugamaḥ.*

Translation: If (you say) that (the moment is) that (motion) qualified by the previous absence of disjunction produced by (this motion) itself, (I say) no! For (one can) not (make such an individual out to be) repeatable, since (an individual which is) peculiar to its very self (is one which is by nature) unrepeatable.

Commentary: What is needed, argues Raghunātha, is an individual which is the residence of a repeatable property, so that there are many of its kind paralleling the flow of time. This repeatable property will be called "momentariness"; it will be a universal and not an imposed property. But the candidate the opponent offers, a self-produced motion, cannot be the residence of a universal since it is self-produced. This may not be clear to us, because we use the word "self" as a general term: there are many "selves." But the Naiyāyika uses "self" as an indicator-word, like "I" or "this" or "now," so that it is unrepeatable. As Raghunātha says, a motion

[63]The *Pandit* text is mispunctuated.

produced by itself is unrepeatable, and so the only properties it can have will be imposed properties. Thus the opponent's candidate is unsatisfactory. He emphasizes this again.

Text 59.5-60.1: *Jāte ca vibhāge kutaḥ kṣaṇavyavahāraḥ.*

Translation: And after (this unrepeatable) disjunction arises, how (could one have) a judgment (that anything else is) a moment?

Commentary: Next, as to the theorist who holds that the motion as qualified by *both* 1 and 2 in the commentary on 58.4 will fill the bill,

Text 60.1-2: *Vibhāgapūrvasaṃyogaviśiṣṭāt karmaṇa eveti cet tarhi sutarām ananugamaḥ.*

Translation: If (you say) that (the moment is) the motion qualified by (both) disjunction (and) the previous conjunction, (I say) no! For (that motion is) also unrepeatable.

Commentary: In order to describe this motion, one must refer to the two motions from which it is composed, and, says Raghunātha, they will be just as unique as before.

Text 60.2-4: *Evaṃ pūrvasaṃyoganāśakāle uttarasaṃyogakāle 'pi karmasattve kṣaṇatvaṃ vaktavyam iti.*

Translation: The same argument must be used (against the theories that) momentariness exists in the motion (either) at the time of the destruction of the earlier conjunction (or) at the time of the later conjunction.

Commentary: This rules out 3 and 4 in the commentary on 58.4. Raghunātha has now shown that momentariness is not found in any one of the four motions distinguished by the old theorist, and that it is not found in any combination of them. Therefore, he suggests that a new category be set up consisting of individuals which are not motions, tropes or anything else - neither presences nor absences, as Raghudeva says - which share the universal, repeatable property of momentariness.

Next, Raghunātha poses a problem which he doesn't solve, but leaves for others to ponder over.

Text 60.4-61.4: *Adṛṣṭadaśarathādīnāṃ cedānīntanānāṃ daśarathapadād anyeṣām api piśācādipadāt kena rupeṇa padārthopasthitir ity avahitaiḥ paribhāvanīyaṃ sūribhir iti kṛtaṃ pallavitena.*

Translation: How does it come about that, from (hearing) the word "Daśaratha," people (who are living) now (and who) never saw Daśaratha come to know of him? Likewise how, from (hearing) the words "hobgoblin," etc., do others come to know (the corresponding individuals)? (I) leave this for attentive scholars to meditate upon. (I) shall not expand further here.

Commentary: Daśaratha was the father of Rāma, the hero of the Indian epic, the *Rāmāyana*.

Now on to another new category which Raghunātha calls "svatva." "Sva-" is the word we translated "self-" a bit earlier (in 59.3-5). "Svatva" is the name of the connector between what belongs to a person and that person. We might translate it "possessedness."

Text 62.1-2: *Evaṃ svatvam api padārthāntaram. Yatheṣṭaviniyoga-yogyatvaṃ tad iti cet ko 'sau viniyogaḥ?*

Translation: Possessedness (is) another (new) category. If (you say) that (possessedness is nothing but) being fit for use as one wishes, (I say) what (kinds of) use (are you speaking of)?

Commentary: The opponent holds that to have an inalienable right to something, to own it, is to have the ability to use that thing as one desires provided nothing hampers one. "Yogya," "fit for," does not quite mean "possible" or "probable," but rather that when the right conditions are present, something will happen.

Text 62.3-4: *Bhakṣaṇādikam iti cen na parakīye 'py annādau tatsambhavāt.*

Translation: If (you say that the use is, for example,) eating, etc., (I say) no! For (it is) possible (for one to eat) food, etc., belonging to others.

Commentary: Owning food can't merely mean being able to eat it whenever you wish, because in that case you own your neighbor's food. But notice the shift from "yogya" to "sambhava," which does mean literally "possible." The opponent tries to capitalize on this.

Text 62.4-63.1: *Śāstraniṣiddhaṃ tatheti cet kiṃ tac chāstram?*

Translation: If (you say) that (eating another's food is) prohibited by scripture, what (is the) scriptural passage (of which you are speaking?

Commentary: You can't own your neighbor's food, says the opponent, because there are hampering conditions, namely, the fact that scripture prohibits it. Raghunātha wants to know which is the relevant injunction in the scripture.

Text 63.1-2: *Parasvaṃ nādadītety ādikam iti cet svatvāpratītau kathaṃ tatpravṛttiḥ.*

Translation: If you quote the text, "One may not take what belongs to another," (let me ask) how can such (a notion) arise if one has not (already) a notion of possession.

Commentary: The notion of belonging to oneself is precisely the one we were trying to analyze. Thus the opponent's argument is circular and actually proves exactly what Raghunātha wants to prove, namely, that possessedness is a basic notion, a separate category.

Text 63.2-4: *Tasmāt svatvam atiriktam eva. Pramāṇaṃ ca tatra parasvaṃ nādadītety ādikaṃ śāstram eva.*

Translation: Therefore, possessedness (is an) additional (category). And (as a matter of fact) the scriptural passage (which you quote), "do not take what belongs to another," etc., (is) a valid means of proof (of the verbal-authority variety).

Commentary: Though possessedness, being a category, cannot be defined, it can be characterized, and Raghunātha goes on to do that.

Text 63.4-64.2: *Tac ca pratigrahopādānakrayaṇapitrādimaranair janyate dānādibhiś ca nāśyate.*

Translation: And that (possessedness is what) is produced (when one) receives things as gifts, (when one) buys (things), and (by inheritance when one's) parents die, and it is destroyed by giving (things) away, and so forth.

Commentary: The opponent immediately raises an objection: if you say that possessedness is caused by all these various kinds of things, how can one kind of individual have a plurality of kinds of causes? Either there is only one cause, he might argue, or there must be a plurality of possessednesses. This follows the rule "single cause, single effect" so typical of the old Nyāya view of causation. Raghunātha conveniently uses this objection to carry his discussion on toward the next section, where he will offer an alternative to the rule.

Text 64.2-3: *Kāraṇānām ekaśaktimattvāt kāryāṇāṃ vaijātyād vā kāryakāraṇabhāvanirvāha iti dik.*

Translation: Our view (is) that the cause-effect relationship comes about (here) either because the causes have a single causal-efficacy or because the effects (are) of different sorts.

Commentary: As we shall see, Raghunātha eventually rejects the second possibility implicitly by substantiating the first. The two possibilities are these: (1) the various causes - being given something, buying something, inheriting it - all are in connection with one individual, which Raghunātha will call causal-efficacy; (2) the possessedness resulting from being given something is of a different sort from the possessedness resulting from buying something. He now goes on to set up causal-efficacy as a new category.

Text 65.1-66.1: *Evaṃ śaktir apy atiricyate. Tṛṇāraṇimaṇyādisthale jātitrayakalpanām apekṣya tattatsambandhānām ekaśaktimattvena kāraṇatvakalpanāyā eva laghutvena nyāyyatvāt.*

Translation: Further, causal-efficacy is (to be) added (as a new category). For rather than holding (that there are) three (distinct) universals in grass, firewood and jewels (which are all conditions of fire), (it is) better, because simpler, to hold that the connectors between condition and effect (in a case where different conditions produce the same effect) are conditions just insofar as they possess one (common) causal-efficacy.

Commentary: According to tradition, fire can be caused in various ways; for example, by the blowing of the wind on grass, by rubbing sticks of firewood together, and by focussing the sun through a jewel, as we do through a magnifying glass. The old Naiyāyika would say, in these cases, that grass produced fire by its contact with the blown air, firewood by its being the abode of the rubbing action, and the jewel by its contact with the sun's rays. But the question arises whether all three of these objects, the grass in contact with the air, the wood with the rubbing, and the jewel with the sun's rays, share the same universal causality. Because of the rule that a single cause produces a single effect and that two different causes produce two different effects, it seemed that there must be three distinct processes corresponding to the three distinct kinds of causation, that therefore these objects did not share the same universal causation, and that there are three distinct kinds of fire.

Raghunātha conceives this to be a cumbrous theory.[64] He wants to say that all three of these objects do possess something in common, namely, the new individual which he calls causal-efficacy (*śakti*). He conceives of causal-efficacy as something that *connectors* have, or rather are themselves in connection with. (This is important.) For example, between the wind and the grass there is the connector contact. Grass is a condition of fire not only by virtue of its combining with wind, but by virtue of its combining in a certain way, by a certain connector, a contact. Raghunātha suggests postulating a new category of individuals, each of which is connected to all the connectors which are conditions of a single kind of effect. It is because of the fact that the connectors connecting grass and wind, the contact of the sun's rays and the jewel, and the inherence between the firewood and the rubbing are all in connection with a single causal efficacy that these three groups of individuals produce fire and not three distinct effects.

An objector now asks this question: why not say, in order to avoid postulating an entirely new set of individuals, that one universal inheres in the connectors? Then we might say that the two contacts and the inherence, the connectors in the three examples, all produce fire because they share this universal, limited in the appropriate fashion. No, says Raghunātha.

Text 66.1-2: *Sambandhatritayaniṣṭhaikajātyaṅgīkāre ca nodanatvādinā jātisaṅkaraprasaṅgaḥ.*

Translation: On the view that (there is) one universal resident in the three connectors, (there is) a cross-connection of universals because of soundlessness, etc.

Commentary: Let us return to the first and third of the three examples mentioned above. Here are two objects which contain a contact-connector. The first is the object consisting of the wind, the grass and a contact, the second is the object consisting of the sun's rays, the jewel and another contact. Now on the view that one universal inheres in the contacts in both of these cases, there would be cross-connection of universals in the following way. Contact tropes are subdivided into two kinds: first, those contacts which are produced by the motion of the relata (*kriyājasaṃyoga*), and second, those which are produced by contact between parts of the relata (*saṃyogajasaṃyoga*). The first, motion-produced contacts are

[64]Raghudeva says Raghunātha gets his theory here from the Mīmāṃsā school. *PTN*, p. 65, line 15.

further subdivided into the sort which makes a noise (*abhighāta-kriyājasaṃyoga*) and the sort which makes no noise (*nodanakriyāja-saṃyoga*). The contact between wind and grass is of the noisy kind, the contact between the sun's rays and the jewel is of the noiseless kind. Therefore the entity which imparts unity of effect to these contacts cannot be a universal.

Thus a universal cannot inhere in connectors like contact; at best, it can only inhere in the individuals connected – the grass, the wind, and so forth. But now an objector may point out that even granting that no universal can inhere in the connectors, we must still admit that some entity resides in the three causes (grass, wood and the jewel). There must be something which makes these three individuals "causes," and that something is the entity called "causality."

"Very well," says Raghunātha, "suppose you are right, and there is one entity common to grass, wood and jewel. Still, my theory is simpler than the old one."

Text 66.2-6: *Yadi cānvayavyatirekābhyāṃ tṛṇāder api kāraṇatvam iṣyate tadā teṣām apy ekaśaktimattvena tad astu tathāpi jātitrayakalpanām apekṣya śaktidvayakalpanaiva lāghavena jyāyasīti.*

Translation: And even if (the opponent wishes to say that) grass (wood, and jewel share) causality because (the test of) agreement and difference (is satisfied by these substances and their effect, fire) and because these (individuals, grass, wood and jewel) have this causality since they possess a single causal-efficacy, (then I say that) even so it will be better because simpler to admit two causal-efficacies (one in grass, wood and jewel, and another in the connectors) than to admit three universals.

Commentary: Raghunātha's answer is to divide up the several factors differently and save one individual. Suppose, he argues, we divide the conditions into two groups – on the one hand, the grass, the firewood and the jewel, on the other, the three connectors in question. Now assume there are two causal-efficacies, one in connection with each individual in the first group, the other in connection with each individual in the second group. This is a simpler view involving one less individual and so to be preferred.

Why can't the members of Raghunātha's groups be connected to a universal rather than a causal-efficacy?

Text 66.6-7: *Teṣv api caikajātyaṅgīkāre maṇitvādinā saṅkaraprasaṅgaḥ.*

Translation: And (there is) cross-connection of universals among these (three – grass, firewood and the jewel) on the view (that there is only) one universal (inhering in all three), because (they do not share) jewelness, etc.

Commentary: Thus, for the same kind of reason, the individual common to grass, wood and jewel cannot be a universal either. In addition, Raghunātha has all but rejected universals already on more general grounds (52.1-4). He will return to the subject of cause and effect in a moment.

The next subject for discussion is that state of mind called "doubt" *(saṃśaya)*. An old Nyāya rule had it that doubt can only arise concerning perceptual knowledges and not with regard to inference or verbal testimony.[65] Raghunātha disagrees with the rule:

Text 67.1-69.2: *Padajanyadharmikakoṭidvayatadubhayavirodhibhāna-saṃśayātmakayogyatājñānasahitāt śabdād āhatyaiva saṃśayaḥ.*[66]

Translation: Doubt (arises) from words immediately (without the mediation of perception) when the knowledge (one has) of the fitness (of these words is) doubtful because of the appearance of mutually contradictory individuals resulting from the words.

Commentary: Thus when I hear a sentence and doubt that it's true because it contradicts itself or some other knowledge, this doubt of mine stems directly from my hearing the sentence, and not from any further act on my part of looking or feeling around wildly for something corresponding to the words.

The doctrine that Raghunātha is contesting here evidently came into the system after Vātsyāyana. Professor Ingalls has pointed out to me that the later commentaries, such as that of Vācaspatimiśra, adopt a rule which reads, "Knowledge other than perceptual exists only in the form of certainty"; i.e., the only kind of doubt is perceptual, as for example, when one isn't sure whether he's looking at a snake or a rope.[67] Vātsyāyana, however, holds that

[65]Raghudeva states this rule succinctly on page 68, line 22 of *PTN:* "Parokṣajñānaṃ niscāyātmakam eva...."

[66]There is a misprint on page 67, an extra "-ka." Following the commentators, I have read "bhāna" for "jñāna" as the first word on page 69.

[67]Raghudeva states the rule on page 67 of *PTN*, line 24, and again on page 69, line 22. The relevant portion of Vācaspatimiśra is *Nyāyavārttiktātparyaṭīkā*, Kashi Sanskrit Series 24, p. 256.

doubt can arise from a verbal contradiction.[68] Raghunātha is reasserting Vātsyāyana's view.

To back up his contention, Raghunātha cites *Nyāyasūtra* I.1.23, which is the passage over whose interpretation Vātsyāyana and Vācaspatimiśra differ. Evidently he feels the passage speaks for itself.

Text 69.2-70.1: *Samānānekety ādisūtraṃ pramāṇayato maharṣer api sammatam idam.*

Translation: (This is) also the view of the great sage, (the author of the *Nyāyasūtra*, who gives) authority (for it in the words) "Samānāneka...."[69]

Commentary: Well, then, what is doubt? Is it a kind of knowledge or not? Granted that it is produced by words, what sort of a thing is it; what properties is it connected to?

Text 70.1-4: *Ekadharmikanānāviruddhadharmaprakārakajñānatvarūpam koṭidvayavirodhajñānasāmagrīsamājādhīnaṃ ca saṃśayatvaṃ nīlaghaṭatvavan na kāryatāvacchedakam.*

Translation: Just as blue-pot-ness (is) not the limitor of the effectness (in the case where the effect is a blue pot), so doubtfulness is not the limitor of the effectness here (in the case where the effect is a doubtful state of mind); for doubtfulness (is) knowledgeness (whose) chief qualifiers (are) various mutually contradictory characteristics (applied to) a single individual, and (doubtfulness is) produced by a collection of knowledges of (at least) two contradictory alternatives.

Commentary: Consider the case of a blue pot. Traditionally, a blue

[68] *Nyāyabhāṣyam*, Chowkhamba Skt. Series, pp. 119 ff. Vatsyāyana's interpretation of *Nyāyasūtra* I.1.23 is as follows: "Doubt is a consideration seeking for a distinctive mark, that arises either from (1) perception of a common property, (2) perception of a plurality of properties, (3) contradiction, (4) uncertain cognition, or (5) uncertain non-cognition." In explaining 3, the case where doubt arises from a contradiction, he makes no mention or use of the doctrine that doubt can only arise in cases of perception. Vācaspati, discussing the same point, denies that 3 is a cause of doubt, since it is "atyantaparokṣa" – "entirely devoid of perception." *Nyāyavārttikatātparyaṭīkā*, *op. cit.*, p. 256, line 7.

[69] The sutra, completed, reads, "Samānānekadharmopapatter viprattipatter upalabdhānupalabdhyavyavasthātaśca viśeṣāpekṣo vimarśaḥ saṃśayaḥ."

pot comes into being because of a collection of causes, as we have seen, the collection of inherence, non-inherence and necessary condition. The inherence causes of the blue pot are the pot-halves. The non-inherence causes of the blue trope of the pot are the blue tropes of the pot-halves. The pot-halves combine to produce a pot, which is a substance connected to the universal potness. The blue tropes combine to form the blue trope of the pot, which is a trope connected to the universal blueness. Can we now in effect "add" the substance and the trope, consider the "sum" as a single individual, and say that this new individual is connected to an imposed property called "blue-pot-ness"? It will be seen that again a fundamental question is implied concerning the distinction between individual and object.

Raghunātha and the Navya-naiyāyikas say that there is no such individual as blue-pot and that the imposed property blue-pot-ness does not limit the pot. Individuals combine into objects, not into other individuals (with certain exceptions; the pot-halves combine to produce the pot, for instance; but even here the pot which is produced is not the object which consists of the pot-halves and their contact). Objects have no causes. When two pot-halves combine to form a pot, the limitor of the effectness is potness. If the pot happens to be blue - i.e., is connected with a blue trope - this may be an interesting and indeed important connection, but no new universal or imposed property comes into being, nor does any new individual whatsoever come into being.

The same point is to be made with respect to doubt. Analogous to the pot-halves are the various knowledges of contradictory alternatives; analogous to blue-pot-ness, which is a property but does not reside in the effect produced by the pot-halves, is doubtfulness, which is a property but does not reside in the effect produced by the knowledges. Blue-pot-ness does reside in pots which are blue, and doubtfulness does reside in knowledges which are doubtful. The point that Raghunātha is making is that these imposed properties are not the limitors of the effectnesses; that is, no new individual has been created and consequently no new imposed property.[70]

Text 70.4-71.1: *Evaṃ saṃśayatvaśūnyajñānatvarūpaniścayatvam api nīlatvaśūnyaghaṭatvavat tatheti.*

Translation: In the same way, certainty (is of) the form of knowl-

[70]Rāmabhadra, *PTN*, p. 113, lines 21-22, says that the old school held that doubtfulness was the limitor of the effectness, although he doesn't say where this theory might be found.

edgeness free from (being limited by) doubtfulness, just as potness (is) free from (being limited by) blueness.

Commentary: In other words, just as all pots are not blue unless their potness is limited by blueness, so all knowledges are certain unless their knowledgeness is limited by doubtfulness. Doubt is thus not a new category, but the next thing discussed by Raghunātha is.

Text 71.2-74.2: *Kāraṇatvaṃ ca padārthāntaram. Tac ca kāryabhedād avacchedakabhedāc ca bhidyate kāraṇatvatvenākhaṇḍopādhinānugataṃ ca tattatkāraṇapadaśakyatāvacchedakam.*

Translation: Causality (is) an additional category. It is differentiated according to (its) different effects and (its) different limitors; (its particular manifestations are) subsumed under the indivisible imposed property causalityness, and (it is) the limitor of the referential function of the word "cause."

Commentary: In the theory of the old school, causes were not assigned a special category. A cause could belong to any category. What makes us call them "causes," so it was held, is a universal called "causality" which resides in them (i.e., is connected to them).

In 65.1-66.7 we said, however, that some causes were of such a sort that no universal could inhere in all of them. Further, we have had reason to doubt whether Raghunātha believes in universals at all. In that section we also saw that the connectors in causal situations are in connection with causal-efficacies. Causal-efficacies, however, belong to connectors, and the word "cause" has a wider use, being applicable to all the individuals functioning in the three ways I have described. In virtue of what individual do we call a given individual a "cause"? It cannot be a universal, for reasons similar to the one mentioned already – there would be a cross-connection of universals. So Raghunātha sets up a new category for it. Just as the one absence (see page 63) is, it is differentiated according to the individuals it is limited by, in particular an effect. Just as each absence (in the limited sense) is subsumed under the imposed property absenceness, each causality is subsumed under the imposed property causalityness. Note that causalityness is not necessarily a second-order property, since causality is not necessarily a first-order property.[71]

[71]However, if Raghunātha did not intend us to think that causality is a property, he would have been better advised to find a word which does not end in "tva," often a sign that the word is the name of a property. There are "-tva"s which are not properties but tropes, though, e.g., weight *(gurutva)* and liquidity *(dravatva)*.

How do we come to know this new individual?

Text 74.2-4: *Grāhakaṃ ca tasya kvacid anvayavyatirekadarśanasahakṛtaṃ pratyakṣam kvacid anumānaṃ kvacid āgamādikam.*

Translation: Sometimes (the means of) coming to know causality (is) perception (of it) combined with our seeing the (proof of) agreement and difference (with respect to cause and effect), sometimes (it is) inference, and sometimes (it is) scriptural authority, etc.

Commentary: The "etcetera" presumably refers to other kinds of authority. The first part of this sentence, concerning "agreement and difference," merely means that when we see that certain individuals are always associated with the production of certain other individuals, and when we see also that when the former individuals are not present the latter do not get produced, then we see causality. Note the wide sense of "perceive" or "see," of which we have made mention before.

Text 74.5: *Etena kāryatvaṃ vyākhyātam.*

Translation: Effectness is to be explained in the same manner.

Commentary: Analogous to causality is another kind of individual, one which is connected to each effect. There is only one, but it is limited in various ways by the causes it comes into connection with; it is the residence of the imposed property (not necessarily of the second-order) effectnessness, and so forth. But why must there be both these individuals, causality and effectness?

Text 74.6-10: *Kāraṇatvapratiyogikatvam eva kāryatvam iti cet, kāryatvapratiyogitvam eva kāraṇatvam iti kiṃ na rocaye. Tasmāt kāryatvaṃ kāraṇatvaṃ cobhayam evātiriktaṃ bhinnaṃ ceti kṛtam pallaviteneti.*

Translation: If (the opponent argues) that effectness (is) merely (the individual which resides in) the adjunct of a causality, why can he not (equally well) say that causality (is) merely (the individual which resides in) the adjunct of an effectness? For this reason, effectness and causality (are) both (to be) added (as categories), and as distinct (categories) - why should I say more?

Commentary: The case is similar to being present and being absent (cf. commentary on 49.2). Now Raghunātha sets up still another category.

Text 75.1-2: *Saṃkhyā ca padārthāntaraṃ na tu guṇaḥ guṇādiṣv api tadvattvapratyayāt.*

Translation: Number (is) a separate category, not a (kind of) trope, for (we make) the judgment (that there is) possession of that (namely, number,) in tropes, etc.

Commentary: Old Vaiśeṣika theory counted number as one of the twenty-four kinds of tropes. Now there is a categorial rule which says that tropes cannot inhere in tropes. But we can count tropes – e.g., we can say that there are six red tropes in a certain painting – so that number itself cannot be a trope.

Text 75.2-5: *Na cāsau bhramaḥ bādhakābhāvāt. Ekārthasamavāyapratyāsattyā tathāpratyaya iti cen na vilakṣaṇābhyāṃ samavāyaikārthasamavāyābhyām avilakṣaṇāyās tadvattāpratīter ayogāt.*

Translation: And this (judgment we make that tropes have number is) not an erroneous one, for (there is) no (other) judgment (we make) which contradicts (it). If (you argue) that judgments of this kind (occur when there) is inherence of two qualifiers in one individual (substance), (I say) no, for inherence and inherence-of-two-qualifiers-in-one-substratum (are) two (quite) different (connectors), from which (one) cannot derive the homogeneous idea of possession.

Commentary: A single substance may have two distinct tropes inhering in it; for example, a billiard-ball may be both red and round. The opponent wants to argue by analogy that when we say that there are six red tropes in the painting, what we mean to say is that the substance in the painting (in the object we call "the painting") has both the trope called "the number six" and the trope called "red color" inhering in it at the same time. Raghunātha says no, that the relation of two things inhering in a third is a different relation from that of one thing inhering in a second. In the judgment "there are six red tropes," we are talking about the second kind of relationship. Thus the two judgments (1) "the pot possesses red-color" and (2) "the red-color possesses six-ness" present a homogeneous idea of possession: these are two cases of the inherence connection. The opponent's analysis does not save this homogeneity.

And if this does not convince the opponent, Raghunātha offers the following:

Text 75.6-8: *Ghaṭatvādau caikārthasamavāyād ekatvapratyayavad dvitvādyekārthasamavāyād dvitvādipratyayaprasaṅgaḥ rūpatvādau ca na tatsambhavaḥ.*

Translation: And just as the judgment of one-ness in potness, etc., (is to be explained by the opponent) through inherence-of-two-qualifiers-in-one-substratum, so (there ought to be) a judgment of two-ness in colorness, etc., (explainable) through inherence-of-two-qualifiers-in-one-substratum, and that (is) not possible.

Commentary: The opponent argues that when one says "*x* possesses *y*," this is to be rendered in his system thus: "*x* and *y* both inhere in substratum *z*." Very well then, says Raghunātha, we sometimes want to say that there is only one potness. This will be rendered "one-ness and potness both inhere in some substratum." But such an analysis will not work in other cases. For take this case: there is colorness in the colors of the two halves of a pot. Here colorness and two-ness both inhere in the same substratum, namely, the colors of the pot-halves. It should follow, then, that we would make the following judgment: "colorness possesses two-ness." And not only do we not make any such judgment in such a situation, we know that such a judgment, if it were made, would be false. There is only one colorness, for colorness is a universal.

Raghunātha now disposes of another peculiar doctrine of the old school, namely, that there is only one inherence connector.

Text 76.1-3: *Samavāyo 'pi ca naiko jalāder gandhādimattvaprasaṅgāt paraṃ tu nānaiva samavāyatvaṃ tu punaranugatam akhaṇḍopādhir iti.*

Translation: And (it is) not (the case that there is only) one inherence (connector), for if it were, water would smell, etc. Rather, (there are) many (inherence connectors), but (what is known as) common (to them is) inherence-connector-ness, (which is) an imposed property.[72]

Commentary: Inherence connectors make up a separate category.

Next Raghunātha distinguishes another kind of connector which constitutes a separate category.

Text 76.4-77.3: *Vaiśiṣṭhyam api padārthāntaram. Rūpādipratītinimittatayā samavāyasyevābhavavattāpratītinimittatayā tasyāpi siddheḥ. Svarūpasambandhaviśeṣa eva tathāpratītinimittam iti cen na samavāyocchedaprasaṅgāt, tatrāpi svarūpasambandhaviśeṣasya nimittatāyāḥ suvacatvāt.*

[72] *Materials*, pp. 75-76. Ingalls is mistaken, however, in saying that inherence "is an occurrence-exacting relation between one entity and more than one entity," since there are many cases where the relation is one to one. Take, for instance, the connector between a substance and its color-trope, or between a substance and a motion.

Translation: The absential connector (is) also a separate category. For just as an inherence connector (is) a necessary condition of judgments about colors, etc., so this (absential connector is) a necessary condition of judgments about the loci of absences. If (you say) that the necessary condition of these judgments (about the loci of absences is) a certain (kind of) self-linking connector, (I say) no, for this would result in the elimination of inherence (as a connector). For (one might) just as easily say that self-linking connectors (were) the necessary conditions of judgments of the previous type (i.e., concerning colors).

Commentary: Each case of a self-linking connector is distinct, in the sense that there is no property common to any two of them. If the connector between the absence of pot and the ground were a self-linking connector, we could not say that any given case of this was a case of absential connection. There would be just as much, or just as little, reason to make the absential connector self-linking as to make inherence self-linking. If either were to be considered a self-linking connector, then we could not make such judgments as "the pot possesses color" (for "possesses" points to a similarity between this connection and other cases of the same kind of connection, namely inherence) or as "there is no pot on the ground" (which involves a similarity between this case of absential connection and others).[73]

Still another kind of connector which, for the same kind of reason, must receive special-category status according to Raghunātha is the connector which connects the content of a knowledge (or one of the other content-possessing tropes mentioned in commentary on 32.2-4) to the knowledge (or trope). This connector points from the content - say, the pot - to the knowledge of the pot. The pot is the subjunct, the knowledge is the adjunct. What Raghunātha says in the next passage is that this case is to be argued analogously to the previous one on the absential connector.

Text 78.1: *Etena jñānādiviṣayatā vyākhyātā.*

Translation: The objectification (connector) is to be explained in like manner (as the necessary condition of) knowledges, etc., (and therefore is not a self-linking connector).

Commentary: A final picturesque discussion closes the business of the book.

[73]Thus Rāmabhadra, *PTN*, p. 127, lines 7-9.

Text 78.2-6: *Nānupaṃrdya prādurbhāvād iti sūtram anupaṃrdya prādurbhāvād iti tadarthaḥ gurūṇāṃ naye na kalañjaṃ bhakṣayed iti kalañjabhakṣaṇābhāvaviṣayakakāryam ity arthaḥ. Etenaitādṛśo 'py anvayaḥ sthalaviśeṣe vyutpattisiddha iti mantavyam.*

Translation: The meaning of *(Nyāya-)sūtra* (IV.1.14: "Abhāvāt bhāvotpattiḥ nānupamṛdya prādurbhāvāt" is) "...absence of origination without destruction" (*not* "...origination with the non-absence of destruction"). When in the doctrine of the Guru (Prabhākara) it is stated "na kalañjam bhakṣayed," the meaning is that the endeavor should have as its aim the non-eating of animals killed with poisonous weapons (not that one ought to eat animals not killed with poisonous weapons!). In this manner this sort of saying must be considered to be syntactically correct in certain cases.[74]

Commentary: Prabhākara is an important figure in the history of the Mīmāṃsā school.[75]

Text 79.1-80.3:

Arthānāṃ yuktisiddhānāṃ maduktānāṃ prayatnataḥ
Sarvadarśanasiddhāntavirodhenaiva darśanam.
Arthā niruktāḥ siddhāntavirodhenaiva paṇḍitāḥ
Vinā vicāraṃ na tyājyā vicārayata yatnataḥ.
Sarvaśāstrārthatattvajñān natvā natvā bhavādṛṣān
Idaṃ yāce maduktāni vicārayata sādaram.
Rītir eṣāpakṛṣṭāpi sevitā pūrvapaṇḍitaiḥ
Yannijoktivicārāya yācate viduṣo parān.

Iti mahāmahopādhyāyatārkikaśiromaṇiśrīraghunāthabhaṭṭācāryaviracitaṃ padārthatattvanirūpaṇaṃ samāptam.

Translation: The demonstration of these matters (which I have) carefully explained (above is one) contrary to the conclusions reached by all the other systems (of Indian philosophy). These matters spoken of (above should) not (be) cast aside without reflection because (they are) contrary to accepted opinion; scholars should consider them carefully. Bowing to those who know the truth concerning matters of all the sciences, bowing to men like you (good reader), I pray (you) consider my sayings with sympathy. This method, though less honored, has been employed by wise men

[74] The "na" in the sutra must be taken with "prādurbhāvād," not with "anupaṃrdya." That is the point of the section.

[75] The author of *Bṛhatī*, he lived around 600 A.D., according to A. B. Keith, *A History of Sanskrit Literature* (Oxford, 1928), p. 473.

of the past, namely (instead of commenting on a classical text) that one ask other men of learning to consider one's own words.

This (is) the end of the *Demonstration of the True Nature of the Things to Which Words Refer,* written by Śrī Raghunātha Bhaṭṭācārya, Mahāmahopādhyāya, Tārkikaśiromaṇi.

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SANSKRIT INDEX

The following is a combined index of: (1) Names of authors and titles of Sanskrit works; (2) Technical terms. The English translation of each term is given in parentheses following the Sanskrit; then follow page-references, except where a number is preceded by "n" ("note").

ENGLISH INDEX

Where an English term is used primarily to translate a Sanskrit word, the Sanskrit is added in parentheses. Figures refer to pages or, when preceded by "n," to notes.